# THE BUILDER

INCORPORATING

"ARCHITECTURE" AND "THE BRITISH ARCHITECT"

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## CIVIL ENGINEERING AND ARCHITECTURE

THE meeting on August 25, at the Institution of Civil Engineers (reported in our issue for September 4), together with the five further ones arranged for the months following should go far towards clarifying the rather confused relationships between the civil engineer and the architect in the building industry. The choice of speakers at this opening meeting was most fortunate in its results. Practically all of them gave a very informing picture as to the functional relationship of their work to building activities as a whole.

The President of the I.C.E. naturally laid stress on the need for a scientific and economic approach towards the problems before us. Lord Portal pointed out the care the Government must exercise in employing the controls regarded as necessary in a form that should inflict the least possible injury on the trade and the operatives by devising a balanced programme extending over a number of years, and covering the education and apprenticeship of young builders. The President of the R.I.B.A. made an especially valuable contribution to the discussion on the housing question, emphasising the human and social element. His view on standardisation was that it would be of use in building units, but that if applied to buildings as a whole our work would probably be known in the future as the ready-made or reach-me-down period, with standardised streets inhabited by standardised men, women and children. As all the fine things of the world were being done by those who deviated from the standard, he would take the risk of some evil also rather than attempt to reduce all to a deadly and mediocre monotony.

Mr. Coppock spoke with his usual vigour in voicing the interests of labour. He felt that in large works, particularly those which were set out to harness natural forces, too little attention had been given to the accommodation of the workers in the outlying places where these were often located. It was evident that the recent developments in the programme of Government munition works were contrasted in his mind with the conditions of the worker when planted in a more or less remote area for some large engineering undertaking. He urged that a more human application should be given to the problems of employment. Mr. Howarth, President of the N.F.B.T.E., was also concerned with this, and also made the point that the contribution of the building professions should have a definite cultural value, preferably of a vocational type. Mr. H. T. Holloway, as a civil engineering contractor, defined this branch as based on unskilled labour, coupled with mechanisation, while the building industry was carried on by craftsmen. Other speakers also made interesting contributions to the discussion.

The resulting impression from the points of view taken by the various speakers was that, provided they were in a position to put their intentions into practice, a very much improved organisation might be envisaged for the building industry and that this would include variations in practice appropriate to the different types of undertaking.

The consideration of especial interest to the professions concerned is that mentioned at the beginning of this article, namely, the line of demarcation between civil engineering and architecture. Of course, there is really no hard-and-fast line, except that, as a general principle, the engineer bases his work solely on economic efficiency and the architect's function is to provide the setting for the social amenities. At the same time, there are many engineering works that demand the services of architecture for their satisfactory completion and many architectural ones that involve the employment of the engineer to cope with the more complex structural problems.

As an example of the first, it is generally recognised that the purely structural treatment of a bridge requires qualifying if it is to harmonise in scale and design with its surroundings, while in the second, the engineer is often better qualified than the architect to determine the most appropriate form for the design of the main supporting members. Despite some notable exceptions, the general character of engineering works has not rendered them an embellishment to our cities, while the recent tendency among architects to treat design from a purely utilitarian point of view has been almost equally unsatisfactory. It is conceivable that this last is a natural reaction from the meaningless and overdone ornament of the later Victorian era, but too often the architect has "thrown out the baby with the bath water," and in his efforts towards simplicity has forgotten the claims of proportion, light and shade, and surface texture.

It is too much to expect a combination in one mind of the qualifications demanded by architecture and engineering, and an intimate co-operation is generally the right solution, but for this to produce the best results the architect should possess some knowledge of engineering technique and the engineer an appreciation of architectural principles. The general science of structural efficiency ought to be within the range of all architects, even if the more elaborate calculations are not, as such knowledge is vital in the initial stages of a design. In cases where the initiative is with the engineer, the architect must be in a position to realise to what degree the basic principles of construction determine the type of treatment and what he can modify without vitiating these.

If the future development of our cities is to be in all respects the finest material exposition of the civilisation of the present day and lead on to something better in the future, the architect and the engineer must work hand in hand to provide the structural setting for all the complicated activities this civilisation requires, guided by a sound general knowledge of these, so that every demand, whether economic or social, can be adequately fulfilled.

# NOTES AND NEWS

**The Uthwatt Report: Prevention of Prejudicial Action.**

In the House of Commons last week, in reply to a question by Mr. Hutchinson, Mr. Strauss, Parliamentary Secretary to the Ministry of Works and Planning, said that in view of the complexity of the matters dealt with by the final report of Mr. Justice Uthwatt's Committee, the Government must carefully study both this report and the report of Lord Justice Scott's Committee before announcing their decisions upon them.

Mr. Hutchinson: Is there not a risk that before legislation can be introduced prejudicial action may be taken by interested parties?

Mr. Strauss: Legislation will, if necessary, be made to apply to conditions as they existed at the date of publication of the Report.

**A Prefabrication Film at the R.I.B.A.**

All members of the R.I.B.A. are cordially invited to 66, Portland-place, on Wednesday, September 30, at 6 p.m., to see a film on "Prefabrication," which Mr. G. A. Jellicoe, Chairman of the Housing Group of the Reconstruction Committee, brought back from his recent visit to America. Strong opinions have been publicly expressed for and against prefabrication as a means of helping to meet the post-war housing shortage. It is believed that those architects who wish to obtain all available evidence before coming to any definite decision on the merits and demerits of prefabrication will welcome an opportunity of studying an example of its extensive use. The film shows very clearly the methods adopted in the American example, and the accompanying sound description fully explains the process.

**Technical Developments in Building.**

As we announced last week, a course of lectures is to be given at the R.I.B.A. on "Recent Scientific and Technical Developments in Building." The following programme has been arranged at the time of going to press:

Saturday, October 10, at 2.15 p.m., Mr. G. L. Greaves, A.R.I.B.A., on *The Scientific Organisation of an Architect's Work.*

4.30 p.m., Mr. A. W. Skempton, M.Sc., A.M.Inst.C.E., and P. C. G. Hausser, B.Sc., M.Inst.C.E., M.I. Struct.E., on *Foundations.* Mr. Skempton will deal with soil mechanics.)

Saturday, October 17, at 2.15 p.m. and 4.30 p.m., Mr. Ewart S. Andrews, B.Sc., M.Inst.C.E., M.I.Struct.E., and Mr. C. S. White, A.R.I.B.A., on *The Influence of Recent Scientific Research on the Design of Building Structures.*

The Chairman of the first session on Saturday, October 10, will be Mr. Alister MacDonald, Chairman of the A.S.B., and of the second session, October 10, Sir George Burt.

It is hoped that the President of the R.I.B.A., Mr. Ansell, will open the first meeting. Those who wish to attend are asked to notify the Secretary of the R.I.B.A. without delay.

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**Town Planning Examination Designs.**

To-day (Friday) an exhibition will be held at the Housing Centre, 13, Suffolk-street, S.W.1, being a selection of studies of garden cities by candidates in the Final Examination of the Town Planning Joint Examination Board. Mr. Henry G. Strauss, Parliamentary Secretary to the Ministry of Works and Planning, will open the exhibition at 4 p.m. Mr. G. L. Pepler, Chairman of the Board, will be in the chair, and Mr. W. R. Davidge, the examiner, will speak on the designs. There will be tea at 3.30 for members.

**A Telford Bridge, Scotland.**

By a decision of Lanark County Road Board one example of the work of Telford, the great road and bridge engineer, is to escape demolition. At Elvanfoot, to the south of Crawford, a new bridge and length of road were constructed some years ago, replacing a Telford bridge. This old masonry arch and about 200 yards of road on the east bank of the River Clyde were left untouched and in the interval have fallen into a state of disuse. A proposal to demolish the bridge has now been turned down by a majority of the Road Board, who are anxious to retain this modest specimen of Telford's work.

## COMING EVENTS

**Saturday, September 19.**

Institution of Municipal and County Engineers. Meeting at Royal Pavilion, Brighton. 2 p.m.

**Friday, September 25.**

Living in Cities Exhibition. At Bradford. (Open until October 10.)

**Saturday, September 26.**

Institution of Municipal and County Engineers. Yorkshire District. Meeting at Civic Hall, Leeds. 2 p.m. Eastern District Meeting at Chelmsford Public Library. 2.50 p.m.

Institute of Quantity Surveyors. Midland Branch Meeting. White Horse Hotel, Congreve-street, Birmingham. 3 p.m. West of England Branch Meeting. Royal Hotel, Bristol. 3.30 p.m.

# M.O.W.P. REGIONAL PLANNING OFFICERS

The Ministry of Works and Planning announces that in accordance with the terms of the Ministry of Works and Planning Circular No. 1 sent to all local and planning authorities on July 21, the Minister has now appointed Regional Planning Officers for the whole of England and Wales.

The work of these officers will be of an advisory and liaison character, and briefly will consist of keeping planning authorities informed as to requirements of national planning policy as this develops and the Minister of Works and Planning of the problems in their area; they will also advise local authorities regarding planning problems generally, particularly those authorities with devastated areas, on the question of surveys and preliminary plans for reconstruction. Contact will also be kept with Regional Officers of other Ministries on all matters of mutual concern. The names and addresses of the Regional Planning Officers are as follows:—

**Chief Planning Inspector and Chief Regional Planning Officer:—**

K. S. Dodd, M.C., M.A., A.M.Inst.C.E., M.T.P.I., Ministry of Works and Planning, Lambeth Bridge House, London, S.E.1. (Telephone: Reliance 7611.)

**Regional Planning Officers:—**

| | |
|---|---|
| Northern Region. | R. B. Walker, F.R.I.B.A., M.T.P.I., 19, Highbury, Jesmond, Newcastle-on-Tyne. (Telephone: Jesmond 2225.) |
| North-Eastern Region. | R. H. Mattocks, P.P.T.P.I., Temporary address, 7, Blenheim-terrace Woodhouse-lane, Leeds, 2. (Telephone: Leeds 22382.) |
| North Midland Region. | R. A. Hudson, M.T.P.I., 44, Lucknow-avenue, Mapperley-Park, Nottingham. (Telephone: Nottingham 66907.) |
| Eastern Region. | E. FitzGibbon, B.A., B.A.I., Temporary address, c/o Ministry of Health, 12 Queen Anne-terrace, Cambridge. (Telephone: Cambridge 54461.) |
| Southern Region. | A. Morris, M.Inst.C.E., M.T.P.I., 61, Western Elms-avenue, Reading, Berks. (Telephone: Reading 69826.) |
| South-Western Region. | H. W. J. Heck, M.I.M. & Cy.E., M.T.P.I., 15, Elmdale-avenue, Clifton, Bristol. (Telephone: Bristol 34670.) |
| Wales. | R. D. Jones, A.R.I.B.A., A.M.T.P.I., 17, Ninian-road, Cardiff. (Telephone: Cardiff 686.) |
| Midland Region. | E. H. Doubleday, P.A.S.I., A.M.T.P.I., 75, Westfield-road, Edgbaston, Birmingham. (Telephone: Edgbaston 3624 and 3625.) |
| North-Western Region. | M. J. Hellier, A.M.I.M. & Cy.E., A.M.T.P.I., 100, Palatine-road, West Didsbury, Manchester, 20. (Telephone: Didsbury 3937.) |
| South-Eastern Region. | H. R. Wardill, F.S.I., M.T.P.I., 24, Calverley-park, Tunbridge Wells, Kent. (Telephone: Tunbridge Wells 3237.) |

**Uthwatt Report and L.M.B.A.**

The London Master Builders' Association has set up a Committee to consider the effect of the Uthwatt Committee's report on building in the London area. Details are on page 246.

# "HIGHWAY GRID"

## 3.—SUGGESTED TRAFFIC HUB FOR LONDON

BY JOHN E. M. MACGREGOR, F.R.I.B.A.

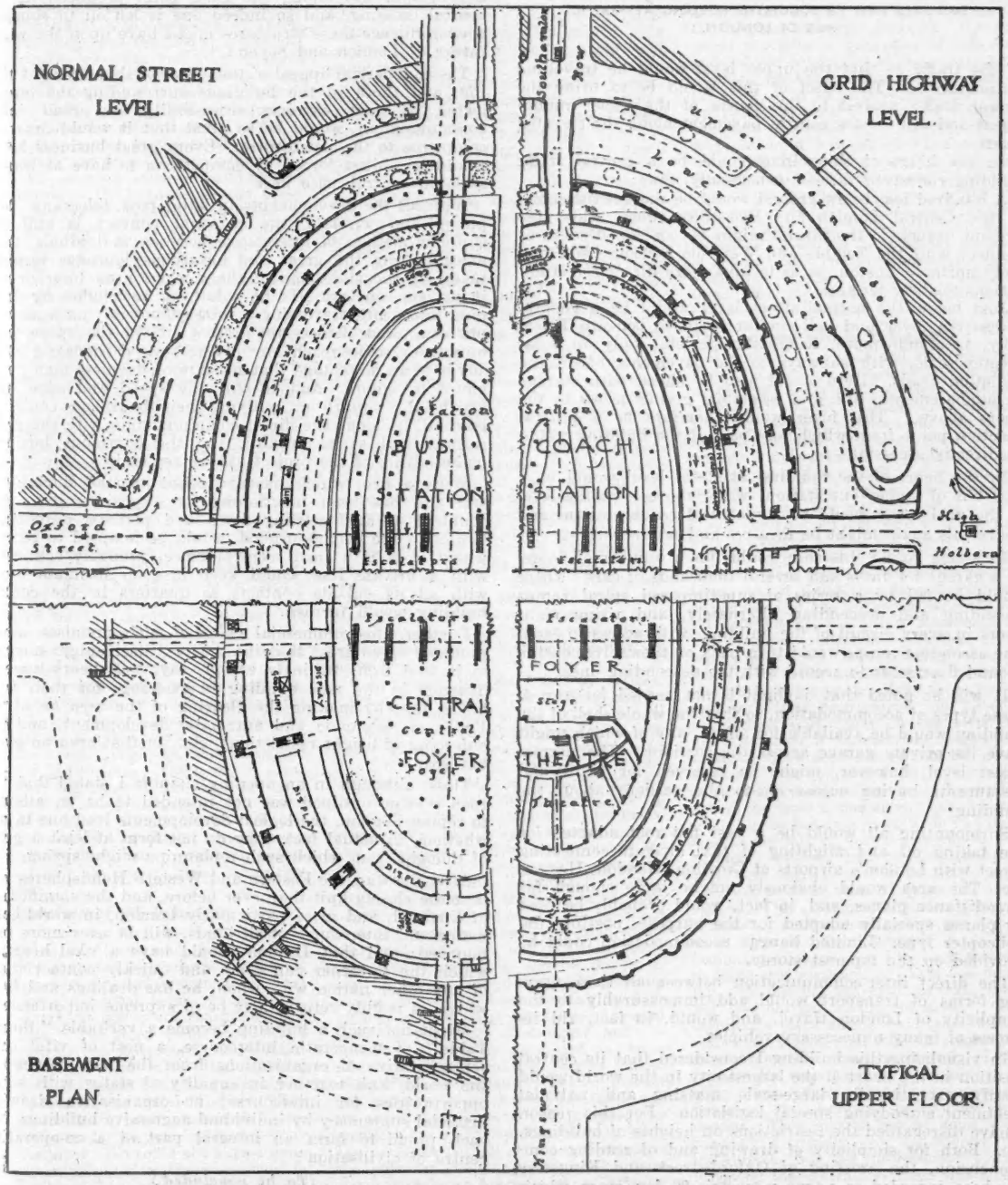
In the last article it was explained how London's suburbs might be interconnected and its heart relieved of through traffic and given a new life by the application of the Highway Grid system of elevated roads in the form of a cross with the end of its arms at Marble Arch, Camden Town, Aldgate and Elephant and Castle, producing a focal point of outstanding importance at its centre.

The central crossing at Holborn might develop into the veritable heart of London's traffic and a national business centre. A kind of three-dimensional organism might be worked out rather on the lines indicated by the accompanying sketches.

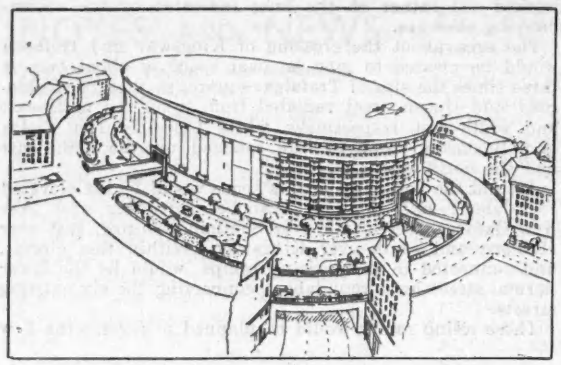
The area about the crossing of Kingsway and Holborn would be cleared to give an oval space of about two or three times the size of Trafalgar-square, so that Theobalds-road and Queen-street radiated from it on the north-east and south-west respectively, while Lincoln's Inn Fields and Bloomsbury-square were touched on the south-east and the north-west.

Around the perimeter of this space would be the elevated roundabout with the four branches spreading west over New Oxford-street, north over Southampton-row, east over Holborn and south over Kingsway. Within this circuit, and connected to it by rising ramps, would be the lower normal street level roundabout connecting the six existing streets.

These rising ramps would be planned to reverse the flow




PLANS OF SUGGESTED BUILDING AT TRAFFIC HUB OF LONDON.



BIRD'S-EYE VIEW OF SUGGESTED BUILDING AT TRAFFIC HUB OF LONDON.

of the traffic so that the upper level would be travelling anti-clockwise. The effect of this would be to bring the slower traffic nearest to the centre of the upper roundabout and against the central pavement along the elevated roads.

In the heart of this circus could be a central traffic building conceived three-dimensionally, thus:—

A hundred feet below ground would be the existing cross of the Central London and Piccadilly tubes, while the present branch to the Strand might be continued south to connect with the Temple and Waterloo Stations, and possibly north to Euston, so as to give more direct communications to these termini.

Just below the normal street level would be a general pedestrian foyer and hall similar to those beneath Piccadilly, Leicester-square, Knightsbridge, etc., only on a far greater scale, with subways to the pavements of all the radiation roads. Here would also be shops with storage in sub-basements, lifts and escalators giving access to the floors above. This foyer would therefore be a general junction point from which any part of the building would be directly accessible.

In the heart of the building at street level would be a vast bus or trolley-bus station, while above it at the level of the grid roads would be the central coach station, and above this again might be theatres and an arena.

In a ring round this core would, for a number of floors, be a garage for taxis and several thousands of cars. These would be fed by a series of superimposed spiral ramps ascending and descending alternately, and rising eight floors in every circuit of the building, with access to each. The ascending ramps would turn back on themselves on the ground floor so as to accord with the descending ones.

It will be noted that daylight is not needed for any of these types of accommodation, so that the whole shell of the building would be available for offices, any of which might have its private garage across the corridor. The normal street level, however, might be reserved for clubs and restaurants having access on to the gardens about the building.

Surmounting all would be a vast flat roof adapted for the taking off and alighting of taxi aircraft connecting direct with London's airports at Croydon, Hendon, Heston, etc. The area would obviously not be large enough for long-distance planes, and, in fact, would probably be used by planes specially adapted for the purpose, possibly the helicopter type. Limited hangar accommodation could be provided on the topmost storey.

The direct inter-communication between all these varying forms of transport would add immeasurably to the simplicity of London travel, and would, in fact, rid its streets of many unnecessary vehicles.

In visualising this building I considered that its central position in the heart of the largest city in the world would justify exceptionally large-scale massing and national treatment embodying special legislation. For this reason I have disregarded the restrictions on heights of buildings, etc. Both for simplicity of drawing and of reading comprehension, the crossing of Oxford-street and Kingsway has been regarded as a true geometric 90 deg. cross, which in point of fact it is not, Kingsway and Southampton-row, to begin with, are not in a straight line. Also, although the components of the scheme are roughly in proportion with one another, the plans were sketched direct from the visual picture without reference to scale.

The oval form of the building arises naturally from its contents and situation in the vast roundabout. The suggested use of tiers of wide, semi-circular bay windows as half columns is an attempt to hold a human scale in an unusually vast building mass.

### Possible Influence of the Traffic Hub Building.

Just as the conception of the great cross of elevated roads, which might well be the solution of many of London's traffic problems, followed naturally from the attempt to apply the principle of the "road grid" to our city, so the hub building just described followed naturally from the idea of developing the focal point produced at the central crossing, and so indeed one is led on to consider what influence these structures might have upon the whole future of London and beyond.

The commercial appeal of the offices of this central building, and those in the buildings surrounding the circus, owing to their extreme accessibility and road intercommunication, would be so great that it would draw all commerce to the new centre. Every great business house would be almost forced by competition to have at least a skeleton central office here.

With all the developments in letter post, telegrams, telephone and wireless, the personal contact is still the supreme method of intercourse between individuals, as is evidenced by the great and hazardous journeys recently taken by the statesmen of the world for an hour or two in private conclave. To be able from one's office by dropping into a lift, traversing a subway, possibly on a moving platform, and thence up another lift in the space of a minute or so to reach any of the several thousand other offices is an advantage that no shrewd business man could afford to ignore. Add to this the speed and ease with which any suburb or outlying neighbourhood could be reached, let alone the direct communication with the great railway and aerial termini, and the enormous business potentialities of the project can be realised.

Many a firm which has evacuated its staff during the war and has been functioning for a year or so in the country, its staff settling down and perhaps purchasing houses in the neighbourhood, would be tempted to remain where it is if a small central office, probably connected with a private line, could keep in such intimate touch with all its outside contacts as quarters in the central building would furnish.

Further, the commercial value of such premises would probably be so great that the "City" itself might migrate to it, and firms willingly accept, say, a 20 years lease of quarters in the new building in exchange for their freeholds, thereby making the clearing of the area about St. Paul's an economic and automatic development, and the enforcing of height restrictions, etc., in that area no great hardship.

Thus, although in an opening chapter I stated that the road scheme outlined was not intended to be an attempt to replan London, the logical developments lead one to ask whether, in actual fact, they do not form at least a germ of thought from which such replanning might spring.

After the war, the Eastern and Western Hemispheres will be more closely knit than ever before, and the significance of England, and more particularly London, in world commerce and intercourse of all kinds, will be ever more pronounced; and that London should have a vital heart to which the foreigner can come and quickly contact those of any other nation with whom he has dealings and from which as readily return, may be of supreme importance.

Might not such a building become a veritable "Round Table" of democratic intercourse, a nest of vital cells representative of organisations from the four corners of the world, knit together in equality of status with equal opportunities for intercourse; no organisation drawing artificial supremacy by individual aggressive buildings, but each proud to form an integral part of a co-operating centre of civilisation?

*(To be concluded.)*

# THE STRUCTURE OF THE BUILDING INDUSTRY

## MR. GEORGE HICKS AT THE INSTITUTION OF CIVIL ENGINEERS

THE second of the series of meetings to be held at the Institution of Civil Engineers, Great George-street, S.W.1, to discuss the relations of civil engineering and building, was held on Tuesday, with Professor Inglis (President) in the chair. The subject discussed at this meeting was the Structure of the Building Industry, its Component Parts, and the position of the Operative in relation to the Architect, the Engineer and the Surveyor.

MR. GEORGE HICKS, M.P., Parliamentary Secretary to the Ministry of Works and Planning, was the principal speaker. He said the meetings had been arranged so as to get a better understanding of the respective functions that had been evolved in the building and engineering industries in order that their joint efforts might be employed in giving service to the country. Was there any line of demarcation that could be accepted between building and engineering? He included in the building industry the specialised services of architect, quantity surveyor and others. There was the National Federation of Building Trades Employers and the National Federation of Operatives, each with representation on the National Joint Council that settled questions of wages and conditions. But the National Federation of Employers, and consequently the National Joint Council, excluded a large number of specialist trades, notably subcontractors, such as plasterers and painters. Other trades connected with the building industry had their own arrangements between employers and operatives, *e.g.*, the electricians. The building industry stretched out in a thousand directions, touching almost every part of our economic life, because every building brought into itself articles and materials produced by hundreds of separate industries, but all dependent on the building industry for their existence. Thus the number of people employed was several times greater than appeared on the contractor's tables. It might be that builders had not spent enough time on getting the country to understand the significance of their industry; the average person was interested in food and clothing, but took building for granted. A better organisation of the industry as a whole was needed in order that the country might be more impressed with its importance. There was a great field for defining the functions of those who worked in the building team. There should be better standards for technical performance. But in spite of imperfections the industry had done a great job before the war and was doing a great job during the war.

### The Structure of the Industry.

As to its structure, the industry might be divided into three main groups. First came the manufacture and distribution of building material and equipment. Next were the professional designers, *i.e.*, architects, engineers, surveyors, consultants and specialists. The third group consisted of contractors, sub-contractors and operatives. Then there were the building owners: these might be individuals, syndicates, promoters or public bodies. They called the tune, and afterwards—some time afterwards, he was informed—they paid the piper. We could not have a more efficient industry unless those employed in it had a better idea of their responsibility to the industry and to the public. The inside of a building was its owner's affair, but the outside concerned the general public, and those who built should produce harmonious architecture designed to a good standard of workmanship. The building owner should make up his mind as to what he really wanted before the plans were finally drawn, so that builders could make their financial arrangements well in advance. He should realise that rush building was generally bad building; that a week extra spent on organisation and planning might sometimes save a month on the contract. He should realise that good workmanship and good materials cost a little more, but only a little more, than shoddy workmanship and materials.

As to the relative functions of specialists, operatives and contractors, building technique was no longer the comparatively simple matter that it once had been. A large modern building involved a dozen highly specialised activities in its production. It had about the same relation to the buildings that had preceded it as a modern liner had to sailing ships. There had been a time when the master builder handled all the technical needs of the building, and that was still the case with very small buildings; but owing to the complexity of modern building it was necessary to split the work up amongst different individuals, and, owing to the size, it was necessary to have a contractual procedure which would check expenditure. It was also necessary to have proper particulars of what was proposed, exact plans, written instructions and builders' quantities. This involved on the professional side design, co-ordination and precise particulars and measurements. It was common for over fifty per cent, of a building contract to be let separately from the main contract, or by way of nominated subcontracts. Were all these specialist subcontracting trades part of the industry, and, if so, did the National Federation of Building Trades Employers adequately represent them? If it did not, how could they be better represented? If they were part of the industry they should have some means of putting forward their point of view.

"As to the architect," said Mr. Hicks, "nearly everything in a building has to be thought out first in the imagination of an individual. The building has to be conceived as a whole and also in detail, and this work of original conception and delineation is the work of the architect. He has the imagination and planning ability to think out the building in all its parts, being assisted in this by structural, heating and ventilating, sanitary and electrical engineers, and by the quantity surveyor. The architect is the leader of this team, and to be successful the team must work together from the start. The architect does not need to know everything about everybody else's job, but he should know enough to be able to say whether the others are 'delivering the goods,' and he should be able to keep the team working together without friction. It is sometimes suggested that the functions of designer and co-ordinator should be separated in large modern buildings, and a profession formed of building co-ordinators; but at present the architect does the co-ordination and the system would work well provided the architect has a slightly different training." The architect needed to know more about the building industry as a whole, more about the relative functions of the different specialists, and more about supplies of building materials and equipment. He also needed to know more about the better organisation of the work on the site, so as to make speed without haste, and he should have a clearer apprehension of what contractor, foreman and workman had to do in terms of human labour to carry out the instructions they received. Thus conceived, the architect's job was a big one, but a man properly trained from the start should be equal to it. The quantity surveyor in this country played a most important part assisting the architect from the outset. Often the quantity surveyor assisted in writing the specifications on the original estimates of costs. He prepared the bills of quantities of materials and labour upon which the contractor's estimate was based. During the course of the work, or at its conclusion, he measured up the work or the variations from the contract. He acted in a judicial capacity when accounts were settled. It was sometimes said the quantity surveyor should be independent of the architect and other members of the professional group on the one side and of the contractors on the other. It was also said there was too much measurement on the basis of old methods of production. The surveyor might need a training in standardisation in building technique. He should have actual experience on building jobs.

### The Civil and Structural Engineer.

As regards the civil and structural engineer, there were certain structures, such as bridges, docks and harbours, which he was much more qualified to undertake than anyone else, and there he should act as chief designer and co-ordinator. But on many undertakings the engineer would be well advised to consult a good architect qualified to advise him on the æsthetics of his design. The war had forced a much closer co-operation between builders and civil engineers. The principals of many of the bigger firms belonged to both industries, were members of the two Federations, and it sometimes depended on the convenience of the individual whether for the moment he was to be considered as civil engineer, contractor or builder. There was a wide field in which there was no clear line of demarcation, and the industries frequently overlapped. Many large building works had been carried out by civil engineering contractors on the civil engineering form of contract, and might just as easily have been carried out by architects on the builders' form of contract. All forms of construction should be carried out on the basis of one agreed form of contract. In the last few years there had been much more mixing between engineers and builders: builders had been constructing aerodrome runways as efficiently as anyone, and uniform rates of wages had been agreed. The structural engineer, like the architect, must know what conditions were. He should be brought in at the beginning, not on the site. A modern building was structurally frame and decking. Its internal and external walls were not load-bearing in the old sense. The architect's plans should be related to the stanchion layout, but the structural engineer must not think exclusively of the frame. He must think of the building itself. Much more friendly co-operation between the various professions was needed. They should get to know each other in a friendly way, not merely the individuals, but the professional bodies.

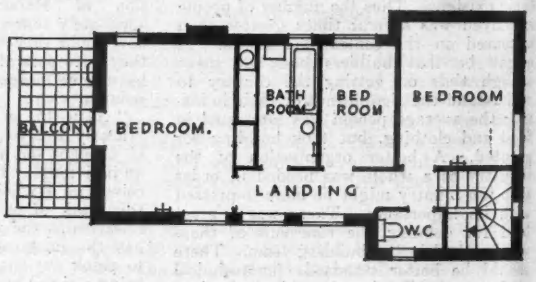
Among the contractors there was a cer-

(*Continued on page 245.*)

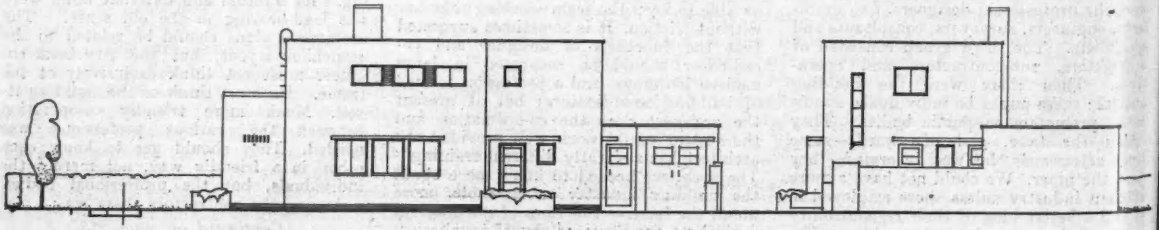
THE ENTRANCE FRONT.

# HOUSE AT HOUGHTON, LANCASHIRE

MR. FRANK WADDINGTON, F.R.I.B.A., ARCHITECT.




FIRST FLOOR



EAST ELEVATION

NORTH ELEVATION

THE LIVING-ROOM.

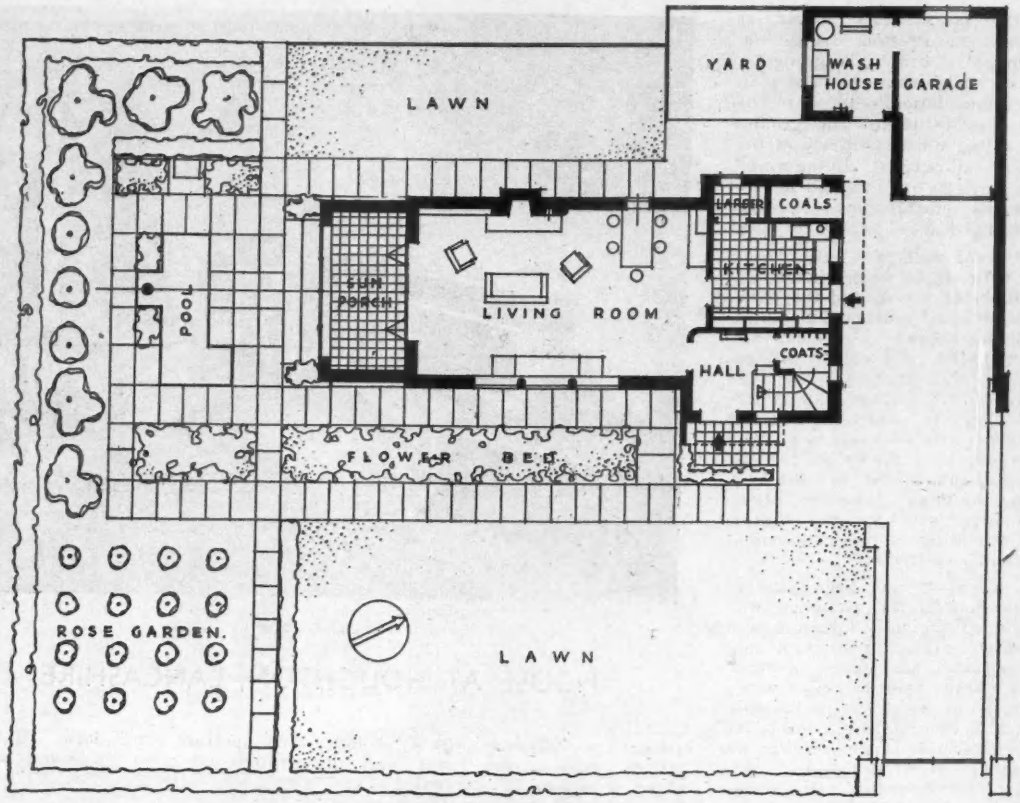
# HOUSE AT HOUGHTON, LANCASHIRE

ILLUSTRATED IS A SMALL HOUSE AT Houghton, near Preston, Lancs, designed by Mr. Frank Waddington, F.R.I.B.A., for his own use. The plan shows accommodation reduced to the simplest possible terms, the ground floor consisting almost entirely of the good-sized, all-purpose living-room, with sun-porch at one end and service arrangements, cloakrooms, etc., compactly arranged at the other.

The external walls are rustic brick finished with an off-white distemper, the plinth being tarred and the parapet walls finished with a 2-in. thick black faience coping. The doors are painted a special green colour and the underside of the canopies a sky-blue. A feature of the ground plan is the sun-porch, beyond which is a small pool. On the long east side is a lawn, and beyond this the rose garden. Garage, with washhouse, is built as a detached building. Upstairs there are two large bedrooms, one with a balcony extending over the sun-porch, and a smaller bedroom.

Much attention has been paid to the decoration by the architect, who also designed the unit furniture and the fireplace. The former is of oak, with top, sides and edges in black cellulose, while the fireplace, which incorporates an electric fire in addition to its open grate, is in black and ivory faience. Walls and ceilings are distempered in oyster grey. The floor is of oak boarding. One corner of the room is devoted to a dining space. The staircase is lit by a tall, narrow window, the lower part of which contains a concealed light. This, in peace-time, would illuminate the aperture after dark. Our illustrations are given by kind permission of "Decorative Art, 1942," The Studio Year Book.

VIEW FROM SOUTH, SHOWING THE SUN TERRACE.




GROUND FLOOR

ANOTHER VIEW OF THE LIVING-ROOM.

HOUSE AT HOUGHTON. LANCASHIRE. MR. FRANK WADDINGTON, F.R.I.B.A., ARCHITECT.

# BERMONDSEY'S RIVERSIDE

## PROPOSALS FOR RECONSTRUCTION

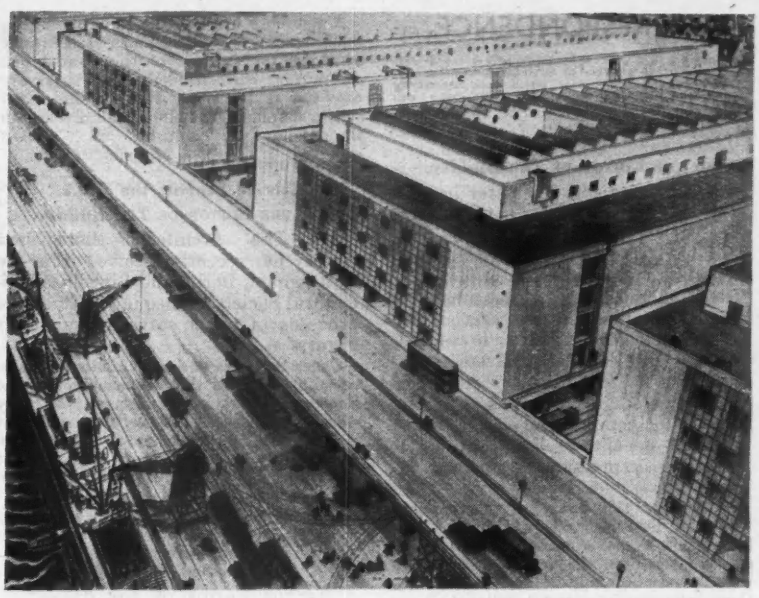
THE extensive damage to wharves and warehouses by air raid caused certain technical officers of the Ministry of Home Security to discuss informally among themselves plans for post-war reconstruction. They selected as an area in which to develop their ideas the river frontage to Bermondsey, and their plan as evolved is shown in the accompanying model.

The basis of the scheme is the siting of new warehouses on the south bank between Surrey Commercial Docks and London Bridge; the warehouses would be of comparatively narrow width, but 500 ft. deep, at right angles to the river, served by mechanical mule and trailer transit from the wharf. This wharf is continuous, and access to the warehouses would be under an elevated 90-ft. boulevard running the entire length of the warehouses. At the rear would be an arterial road linking up with Tooley-street at one end and a duplicated Rotherhithe tunnel at the other. The boulevard would carry fast traffic direct from London Bridge out to the East End boroughs and North Kent without interfering with the passage of goods from the quays to the warehouses. Between the latter are service roads—alternately for ingress and exit.

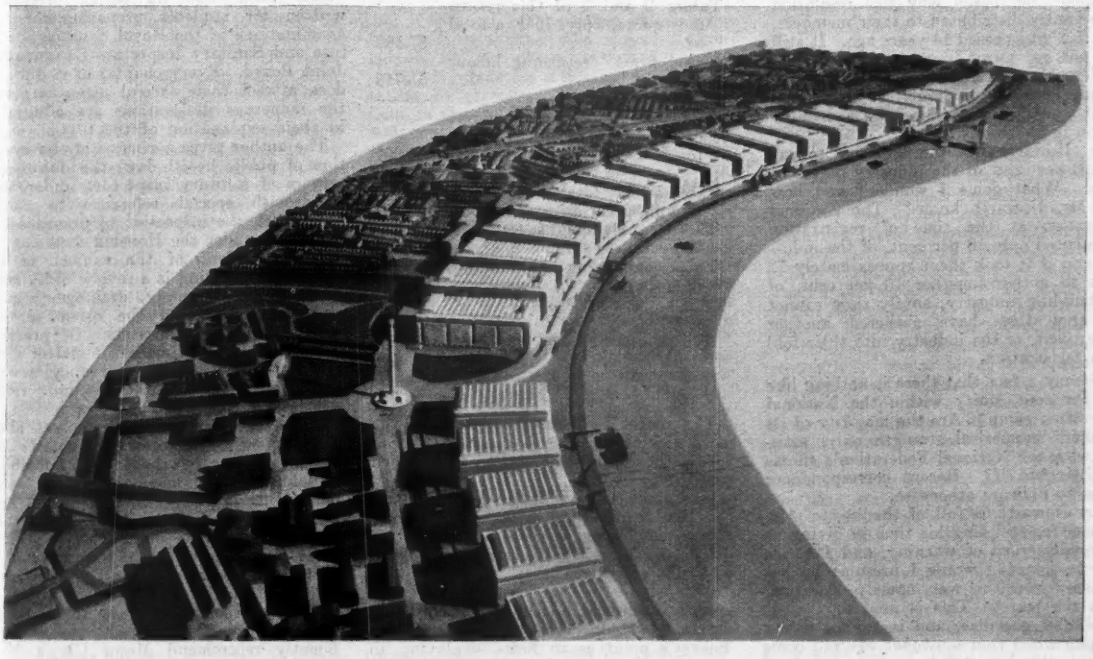
The advantages which the scheme offers are, apart from the traffic relief, the provision of deep-water quays in the heart of London from which the bulk of the goods could be distributed by road; the opportunity for continuing the L.C.C. plan for a southern embankment; an economic basis on which that portion of Bermondsey could be redeveloped; and an architectural setting which is overdue for that particular portion of the riverside.

Among the disadvantages which might arise are chiefly those arising from the loss of amenity. A scheme such as envisaged would effectively shut off the hinterland from access to, and even sight of, the river, for there are three points only at which it is possible for the pedestrian to gain access to the boulevard. Again, it must be remembered that each warehouse as shown is 120 ft. high and that there is no focal point of design; the appearance of such a wall of buildings might be truly formidable. It must be remembered, however, that the scheme is not put forward as being final (as is shown also by the fact that the designers have not attempted to replan the hinterland) and all the criticisms we have made could be met and allowed for in the fully worked-out scheme. We would however, offer one word of warning—that if, as the authors claim, ten times the previous warehousing space is obtainable, that alone will introduce a very considerable new factor in Bermondsey's housing problem, of which, no doubt, the borough is aware.

The model (which has been created by Mr. Eric Aumonier through the collaboration of the Cement and Concrete Association) is on view at the Association's headquarters, 52, Grosvenor-gardens, S.W. The authors of the design are Mr. A. Croad, A.M.Inst.C.E., and Mr. Frank Bennett, A.R.I.B.A.



DETAIL OF WAREHOUSE BUILDINGS, SHOWING ACCESS FROM WHARF.



VIEW OF MODEL OF THE SCHEME. IN RIGHT UPPER CORNER IS TOWER BRIDGE.

# CORRESPONDENCE

*[Whilst we are glad to publish letters on professional and other matters of interest to our readers, it must be understood that we do not necessarily endorse the remarks of correspondents, who will oblige us if they will express their views as briefly as possible.]*

### "Rocking the Boat."

TO THE EDITOR OF *The Builder*.

SIR,—Referring to my letter in your issue of July 17, I have noticed three so-called replies to this, and the title heading has been changed from "Medium and Small-Size Builders" to "Rocking the Boat." I presume that this is an effort on the part of Mr. Bossom and Mr. Howarth in what is known, in common parlance, as "dodging the column," or an endeavour to introduce politics as an excuse for lack of common-sense. However, for their benefit we will continue to use their expression, "rocking the boat."

Ever since this boat has been on the waters it has been steered by the large builders, who have made sure that their steering has been through waters covered with plenty of oil. Unfortunately for them, the medium and smaller builders have at last got so dissatisfied with both the steering and the oil that they are determined that this boat is going to be upset.

The internal organisation of the building industry must not be run for the benefit of a limited few, but for the benefit of the whole. This can be done only by the full use of all the brains of the industry and not a part.

The National Federation, to my knowledge, have been approached by other organisations in the industry with a view to co-operation. This co-operation they refused; therefore, it is up to them whether they get out of this boat or allow other people to assist them in the safe steering.

It may be that I was slightly wrong in my quotation, as all these gentlemen have very ably pointed out, but they have not explained the reason why this resolution was recently distributed to their members, even if it was passed 14 years ago. It still does not get away from the salient fact, which is that whether this resolution was passed recently, or only re-distributed recently, it still tends to create a dissatisfaction in the industry.

Mr. Howarth has the temerity to say that 90 per cent. of the industry plays the game. What game I wonder? and how does Mr. Howarth know? The National Federation at the time of registration represented only 10 per cent. of the industry, and if it took them approximately 72 years to gather together 10 per cent. of the building industry, surely they cannot say that they have gathered another 80 per cent. of the industry into their fold since registration.

Is it not a fact that there is nothing like 100 per cent. unity within the National Federation camp? Are the majority of its members (numerical strength only) satisfied with the National Federation's efforts on their behalf? Recent correspondence seems to indicate otherwise.

Mr. Howarth is full of thanks to Mr. Bossom for spending his time in giving us a friendly word of warning, and I notice that he is using words I presume he has gathered from this war, namely, "sniping from the rear." This is used to a great extent by guerillas, and is a very handy weapon when your opponent will not come out into the open, but hides himself behind political apron strings.

A reference has been made in one of the replies to my *nom-de-plume*. I do really apologise for the use of this, but I can assure your correspondents that it is very essential as I am not a large builder nor even a shareholder in the large firms known throughout the industry as "vested interests." MODERN BUILDER.

### Salvage Benefits the A.B.S.

TO THE EDITOR OF *The Builder*.

SIR,—The Architects' Benevolent Society has recently received from the Nottingham, Derby and Lincoln Architectural Society a cheque for £3 as the proceeds of paper salvage from their library.

Other Societies and individuals may also be going through their bookshelves in the interests of national salvage. If they would follow this example for the benefit of the A.B.S., the money would be received most gratefully, and used without delay for the relief of present distress.

B. N. SOLLY, Secretary.
Architects' Benevolent Society.
66, Portland-place, W.1.

### Registration of Builders.

TO THE EDITOR OF *The Builder*.

SIR,—When does a building firm deserve the name of firm? When it employs five men regularly or when it employs "NIL"?

Your issue of September 4 (page 201) sets out the "Second Thoughts" of the Brains Trust for the Building Industry in the Ministry of Works' return showing figures for July, 1941, January, 1942, and May, 1942 (preliminary).

In March and June last I called attention in *The Builder* to the differences in their total of Registered Builders and those extracted as a check from Kelly's Directory of the Building Trade (1939 issue).

| | |
|---|---|
| Kelly's Directory total arrived at ... ... ... ... | 44,188 |
| Comparable total, given at January, 1942 ... ... ... | 93,000 |
| Tables 2 and 3 of this return now quote, July, 1941, a total of ... ... ... ... | 87,599 |
| Less "firms" returning labour NIL ... ... ... ... | 31,718 |
| Totals of firms employing ONE or more operatives reduced to ... ... ... ... | 55,881 |
| Table 3: the total of firms employing 1-19 operatives ... | 49,293 |
| Those employing 20 to 99 operatives ... ... ... ... | 5,382 |
| Those employing 100 to 499 operatives ... ... ... | 1,011 |
| | 55,686 |
| Add large firms employing from 500-5,000 or over ... | 195 |
| Total ... | 55,881 |

The more the figures are studied the more they arouse interest; any reader can follow them in detail and reach his own conclusion.

One question may arise: Why did not the Report divide the 49,293 figure into groups employing, say—

1 to 5; 6 to 15; 16 to 25; 25 to 50; 50 to 100 operatives?

This would have made the 49,000 figure more interesting; and (remembering January) would have cleared up Mr. Beaver's point as to firms employing an average of no more than three operatives!

Birmingham. WILLIAM MOFFAT.

# BOOK REVIEWS

**Decorative Art, 1942.** The Studio Year Book. London: The Studio, Ltd. Paper, 9s. 6d.; cloth, 12s. 6d.

This, the 37th annual issue of "The Studio Year Book," despite the difficult times, maintains its usual high standard. It deals fully with the house, its apartments and furnishings, some of the reproductions being in colour. The houses illustrated are the work of leading modernist architects. The British section includes an excellent example by Mr. Frank Waddington, F.R.I.B.A., built for his own use. Illustrations of this are included in this week's issue by courtesy of the architect and the publishers. The plan is skilfully arranged, the ground floor having a large living room with sunporch adjoining, and a square hall from which this room is entered. Elevations are of simple character, the external walls being of rustic brick finished off white distemper and the plinth tarred. The house is set in a well-laid-out formal garden. Another good example of a house of the modern school is by the late John Procter, F.R.I.B.A. The volume contains an interesting foreword by the editor, Mr. C. G. Holme, who also writes on floor coverings, under the title "Take the Floor." Mr. Alfred Bossom, M.P., writes on "The Golden Age of British Culture," and Mr. John Gloag on "Revolution in Materials." The volume should appeal to all who are interested in house design, furnishing and equipment.

**The Sanitary Inspector's Handbook.** Fifth edition. By HENRY H. CLAY, F.R.San.I., F.I.S.E. London: H. K. Lewis and Co., Ltd. Price 18s. net.

Few legal or semi-legal books are being published to-day, as a result of the paper shortage; only those urgently required and which deal with emergency legislation and its practice are allowed the necessary paper. We find, therefore, the appearance alone of Major Clay's book the highest possible tribute to its special qualities and its outstanding usefulness to the student of sanitary law.

The book was no doubt originally written for students preparing for the examinations of the Royal Sanitary Institute and Sanitary Inspectors Examination Joint Board. Every chapter of it did and does attract their careful attention; and the numerous illustrations are admirable in their explanation of the text.

The author gives a résumé of the evolution of public health law, the duties and powers of sanitary inspectors under that law; with special reference to smoke abatement, the inspection of premises and procedure under the Housing Acts.

His treatment of the subject of the hygiene of building is a review of by-laws, lighting, water supply, drainage, heating and ventilation and the other services instituted in most districts. Of practical use at the present time is the matter given under the heading of conservancy, sewage disposal, camp sanitation and refuse disposal.

There are illuminating chapters about the hygiene of factories, workplaces and shops, dairies, cowsheds and milkshops, slaughter-houses and knackers' yards, food control, preservation of food, meat inspection, fish inspection, control of canal boats, and a spate of statistics. Indeed, these pages teem with information for sanitary inspectors and all others interested in their work, and comprise a reliable compendium of the practice of a sanitary inspector. To all these we confidently recommend Major Clay's book, not forgetting all students preparing for any of the examinations named.

# COMMUNITY CENTRES

In an attractively presented typescript book,* reproduced by a photo-litho process, the authors of this work, Flora and Gordon Stephenson, analyse carefully and critically 49 community centres ranging in size from a simple hall for a village of 230 in Derbyshire to the £67,000 centre at Slough, and in location from Swansea to Dunfermline. No architect attempting to build a social hall—much less a community centre—should dare to do so without consulting this book. If he perseveres in his reading he will learn exactly what to avoid in the planning of lavatories, the nature of entrances and the siting of games rooms. The survey is an admirable piece of work. It is attractive to handle and to look through, and the site plans are well and boldly drawn, though it is a pity that good, solid blacks are difficult to obtain by the replica process. On further acquaintance one finds the reduced typescript—reduced to one-sixteenth of an inch—tiring to the eyes, and the detailed cataloguing of one centre after another tiring to the brain. After reading consecutively about the eight major centres it is quite impossible to remember which were the good features of which, why this one apparently succeeded and that one failed.

Even though this survey may not have been intended for perusal by the casual, though interested reader, such a method of repetitive description makes it difficult for anyone to see the wood for the trees. This difficulty is partly overcome in two ways: the reader is provided with two tables, and there is a chapter of conclusions. The two tables list each centre under five headings: Town or District; Community Centre; Location; Accommodation; Points of Interest. This system could with advantage have been carried considerably further, in which case the descriptive paragraphs in the main body of the text would have drawn attention to interesting points of difference between centres and would not need to reiterate those points that they had in common. The excellent 20 pages of conclusions dot the i s and cross the t s of most of the things that the architect or the hopeful Community Association will need to know. It is a pity, however, that this chapter is hidden in the heart of the book. It would have been better at the beginning, when the enthusiastic reader would have been rendered eager to press on and learn in detail about each of the centres to which reference has been made. As it is, he arrives at the conclusions slightly jaded, and, though they are clearly and cheerfully written, they lose some interest by necessarily repeating a good deal of the matter that has gone before.

**Accommodation.**

So much for captious criticism; in their conclusions the authors express definite, though sometimes negative, views. No hard-and-fast rule can be laid down as to how many families go to a community centre. "Community centres have not been established long enough for accurate studies to be made." Further, "some have only a bare minimum of hall and two or three all-purpose rooms. Others have a large number of rooms of various sizes and shapes as well as their assembly hall and gymnasium. Although the very large and expensively equipped community centre is not to be recommended to the exclusion of other smaller centres, there is probably room for both types in a well co-ordinated plan. . . . Many of the extra facilities which the very large centre can afford are already to be found in urban areas. Where they are not, or where they need to be renewed or duplicated, the scheme of grouping them together in a large community building is excellent, particularly if this building is supported by a number of subsidiary community centres in other parts of the neighbourhood. In the smaller centres it would not be necessary to duplicate the more expensive items, such as assembly halls, swimming-baths and extensive playing fields. These could be jointly used at the main centre. . . . The question to be decided then is not merely how many families should be allotted to one community centre, but what constitutes the neighbourhood unit, of which the centre should be a part." And so the question arises: What is a community and how can it become so integrated that its people find a natural outlet in working, studying and playing together in a community centre?

**Need for Flexibility.**

The authors are sure that the foundations must be well planned; a centre cannot be just established in an unprepared neighbourhood. In one case "the mere presence of a community building was expected to accomplish miracles. It was not realised that a community life would take some time to evolve, even where a fine building already existed." A Community Association was formed "from above," some of the members of which had no vital interest in the neighbourhood of the centre, and the organisation, after two years, was still in an immature stage. On the other hand, it is difficult to get an active demand for a centre unless there is some form of headquarters. The authors' proposal is "to provide a structural nucleus on a good site so that there will be a proper home in which to start a young Association. The first unit could be part of the complete centre, yet sufficiently self-contained so that it could be used for a year or two while the Association grows. Then, as the need arises and funds are raised, the centre could be built up stage by stage. Architecturally, this should present no insurmountable problem if an ample site is chosen at the outset, and if the plan of the whole building has been well thought out and continually considered as new parts are added." The great advantages of a flexible building are repeatedly stressed. Community Centres tend to change in character and to grow, and unless the building is originally planned with the idea that extensions may be added, great difficulties arise.

There is no space here to list those functions and activities that the authors consider can well be combined, and how they should be combined, in the Community Centres of the future, but they draw attention to the thousands of munition workers who are now living in hostels far from towns where their activities "revolve round a Community Centre equipped with a canteen, an assembly hall, and various games and club rooms. The effect on post-war demand for such facilities in connection with ordinary domestic housing should be widespread. If the air attacks on this country resume on the scale of the past year, the housing shortage will call for more immediate action. It is possible that hostel towns, of the type which are being built near the new war industries, will be one solution of the housing problem. Here, again, there will be a need for community buildings in the form of social centres, communal restaurants, clinics, etc., and again a new kind of community life will be created which will be considerably removed from that which was governed by tradition and slow growth."

J. T.

* "Community Centres: A Survey by Flora and Gordon Stephenson for the Community Centres Joint Research Committee." Price 3s. 6d.

# THE STRUCTURE OF THE BUILDING INDUSTRY

(*Continued from page 239.*)

tain amount of dissatisfaction with existing methods. The P.E.P. report said that in the matter of executive control the contractor's responsibilities were not always defined, nor was it possible normally to define them. In order that the contractor should have a professional status it was highly desirable that his services should be governed by professional standards comparable with those of the other parties. But was it possible for the contractor to have a professional standard and be paid by fees rather than by somewhat speculative profits? At present he was sometimes tempted to scamp work to avoid a loss.

Last, but not least, came the operatives. The operative actually did the work, and the most beautiful plans were useless unless carried out properly. The P.E.P. report said that if the building industry was to carry out its responsibilities fully its workers must have a more intelligent understanding of their job and a more responsible attitude to it. This implied that the trade unions must develop on the lines of professional bodies, concerning themselves with the education and ability of their entrants and their opportunities for getting wider qualifications. There should be a more constructive approach to apprenticeship. The National Federation of Building Trades Operatives was a measure of strength to the industry, and helped it to overcome the forces which seemed to be always dividing it into sections and factions. "The war has knit the industry closer together," said Mr. Hicks, in conclusion; "it has developed a sense of unity within it. It is to be hoped that as one result of the war the building industry will develop a sense of organisation on a national basis. It will have to play a great part in bringing the country back to a peaceful way of life."

**Discussion.**

Mr. Luke Fawcett, speaking as a building operative, endorsed the remarks of Mr. Hicks as regards building and civil engineering being brought closer together by the war from the operative's point of view. He hoped this would persist. Builders had a responsibility not only to the industry but to the nation.

Mr. Alan W. Dawson (Chairman of the Quantity Surveyors' Committee) said that in the early stages building and civil engineering had been much the same, but as time went on the demarcation between architect and engineer became clearer. The engineer was called upon to deal with problems of great magnitude in transportation and public utility services, while the architect continued to meet the increasing demand for structures of all kinds. A revolutionary change had been brought about in building by the use of steel and concrete, and the engineer was called in frequently by the architect as a specialist. By 1935 civil engineers had found it desirable to prepare a code of civil engineering quantities, but only a few quantity surveyors had prepared bills of quantities in co-operation with civil engineers. The practice had extended in war time and surveyors would willingly see it extended further.

Mr. G. H. Parker (Advisory Council for the Building Industry) summarised the history of the relations of employers and employed in that industry during the last 50 years. There was only one way in which operatives and employers could both alike give their utmost to the industry, and that was by 100 per cent. organisation on both sides.

# SCHOOL NEWS

## LIVERPOOL SCHOOL OF ARCHITECTURE.

The prospectus of the Liverpool School of Architecture, now issued (Miss M. G. Lawson, B.A., Secretary, the School of Architecture, the University, Liverpool), gives full details of the courses which the school offers students who intend to practise as architects and wish a full professional education at the University standard in an atmosphere of liberal studies side by side with the students of other professions. To meet the needs of architectural practice, the school offers courses of study leading to the degree of B.Arch., with or without Honours, or (for candidates who have not passed an accepted examination for matriculation into the University) to the diplomas in architecture, with or without distinction. These courses, which are identical, extend over five years. Success in these courses carries exemption from the R.I.B.A. Final examination for Associateship, and also admits to the Statutory Register of Architects.

The prospectus gives particulars of the various entrance and other scholarships offered by the University and also details the position of students under the National Service (Armed Forces) Acts. The school is under the direction of Professor L. B. Budden, M.A., F.R.I.B.A., while the allied department of Civic Design is under the charge of Professor W. G. Holford, B.Arch., A.R.I.B.A.

## THE WELSH SCHOOL OF ARCHITECTURE.

The Welsh School of Architecture, the Technical College, Cardiff, has now been at work for rather more than 22 years under the charge of Mr. W. S. Purchon, M.A., F.R.I.B.A.; the chief lecturer in architecture being Mr. Lewis John, M.A., B.Arch., A.R.I.B.A.; and the assistant lecturers Mr. G. C. Quilliam, B.Arch., A.R.I.B.A., A.M.T.P.I., Mr. L. B. Starling, A.R.I.B.A. and Mr. W. J. Phillips, A.R.I.B.A.

The three years' full-time day course leads to the award of the certificate, to the holders of which the R.I.B.A. grants exemption from its Intermediate Examination, while those students who successfully pass through the further two years forming the Diploma Course, are exempted from the R.I.B.A. Final Examination, a special course of lectures for professional practice and a special examination in this subject being held in the School. Success in the Diploma course also forms a complete qualification for registration under the Architects (Registration) Acts of 1931 and 1938.

A course leading to the Degree of B.Arch. has been arranged jointly by the University of Wales and the Welsh School of Architecture. This course is open only to matriculated students. There is also an Evening Atelier.

The aim of the Welsh School of Architecture is to encourage all-round development by means of a well-balanced curriculum. It is striving not only to reach a high standard in architectural design and draughtsmanship, but is also paying increased attention to the study of modern architectural construction, the production of working drawings and the preparation of essays and written theses. The School of Architecture has for the last 14 years been granted the status of "Final Recognition" by the R.I.B.A.

Ten Scholarships covering tuition fees and maintenance grants of £40 per annum for three years are offered to residents in certain districts of Wales and Monmouthshire for competition annually.

The school year commences on Tuesday, October 6, but intending students are advised to apply at an early date for the particulars of the courses of instruction and of the Entrance and Scholarship Examinations.

## BRISTOL SCHOOL OF ARCHITECTURE.

Mr. J. Ralph Edwards (Chairman of the School Council), presiding at the annual prize-giving of the Royal West of England Academy School of Architecture at Bristol, expressed on behalf of the Council appreciation of the interest shown by the Bristol Education Committee in the school, and its continued support, both in grants and bursaries, which enabled promising British students to train there.

Mr. G. D. Gordon Hake (Principal of the School) said during the session they had had 48 students, which was double the number of the previous session, and was about the pre-war figure. This increase was due to a large new entry of first-year students. One disappointing feature was that keen young recruits were called to the Forces sometimes before they had completed two years of their five-year course.

Mr. F. C. Williams (Chairman of the Bristol Education Committee) presented the prizes.

The following were the awards: First year (bronze medal and book prize), J. B. Ackland; Bertram Wills prize, C. R. Nurse. Second year (silver medal and book prize), J. H. Rendle; Bertram Wills prize, B. A. W. Savage. Third year (Architectural Association Design and Savory Design medal), R. A. Robertson; Redwood construction prize and Turner theoretical construction prize, P. M. Todd; headmaster's prize for most marked progress, P. M. Jaquet; Button measured drawing prize, divided between P. H. Barry and P. M. Jaquet; Spencer measured drawing prize, divided between C. R. Nurse and B. A. W. Savage; Dening water-colour sketching prize, P. H. Barry. Certificates for satisfactory completion of the intermediate course, D. G. Pepperell, R. A. Robertson, and P. M. Todd.

## REGENT-STREET POLY: EXHIBITION OF STUDENTS' WORK.

An exhibition by the architectural students of the Polytechnic School of Architecture was recently held at the annexe, Little Titchfield-street. It comprised the work of students from the first to the fifth year. The designs dealt with numerous subjects, many of wartime or semi-permanent character. With a view to after-war conditions, rigid economy was considered in the preparation of all designs. Amongst the more important schemes—buildings which would be essential after the war—the following were particularly notable: a State board school, modern in character, both in plan and elevational treatment; a training centre for disabled ex-Service men, planned with individual craft blocks; a family health centre designed to treat some two thousand families, suggested for Stepney—a scheme well worked out and shown by some good geometrical drawings, the work of Miss R. E. Wallis, who has been awarded a silver medal for her general work. Two other well-worked-out subjects were a students' hostel, and a scheme for the replanning of Lewisham. The subjects mentioned are the work of fifth-year students. Generally, the work is of a high standard, but the briefness of the exhibition prohibits a fuller notice. The school is now reopened with a large number of additional students.

# THE UTHWATT REPORT

## L.M.B.A. COMMITTEE TO CONSIDER EFFECT IN LONDON.

At a meeting of the Executive Committee of the London Master Builders' Association a resolution was passed welcoming the publication of the Uthwatt Committee's Report, and hoping that the Government will promptly announce its adoption of the main provisions, so that the building industry may be able to plan ahead for post-war reconstruction.

The London Master Builders' Association has set up a Committee, under the chairmanship of Mr. D. C. Burgess, to consider the Uthwatt recommendations with a view to ascertaining the extent to which they will affect the building industry in the London area.

Mr. W. E. Rice, O.B.E., President of the Association, said that his members were greatly impressed by the far-reaching effect of the Uthwatt Committee's proposals, following as they did the recommendations of the Scott and Barlow inquiries. Now that the Government had a clear picture of the problem before them, he hoped, and the building industry hoped, that some early pronouncement of the Government's policy would be made, so that the building industry, in association with architects, surveyors, town-planners, and all others interested, would at least know what type of organisation was contemplated after the war. Suggestions had been made for a State building service after the war, and for public corporations to supervise building. Suggestions of this sort, often put forward with an appearance of authority quite unjustified, were upsetting the industry, and a full statement of official policy was urgently needed.

# PROVIDENT INSTITUTION OF BUILDERS' FOREMEN

Mr. Ernest Searchfield (now in his 83rd year but still hale and hearty) tells us that many calls are being made upon the funds of the Provident Institution of Builders' Foremen and Clerks of Works, of which he is financial secretary. This body—which paid out over £1,100 in 1941 to 48 pensioners, and has (in its century of existence) distributed no less than £45,547—is seriously in need of funds to continue its very necessary work. In an appeal, Sir George Burt, Governor of the Institution, writes: "Without a doubt, the critical time through which we are passing has had a most adverse effect upon the means of the men who draw small pensions from the funds of this Institution; and I was hoping that, being its centenary year, the response to my appeal would have helped to alleviate the distress of the times for these old people. Unfortunately, I have not met with great success, and must, therefore, appeal again for assistance to those who have not yet responded. I appreciate fully the financial strain we are all suffering, but if, nevertheless, you find yourself able to contribute something, I would be very grateful." Contributions, great or small, will be gratefully received by Sir George at 91, Ebury Bridge-road, S.W.1.

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**Mr. W. E. Collier's Estate.**

Mr. William Edward Collier, J.P., of Reading, Berks, Chairman of S. and E. Collier, Ltd., who died on April 18 last, left estate of the gross value of £22,808, with net personalty £20,761.

# COST-PLUS *v.* OTHER CONTRACTING METHODS

*We have received the following communication in answer to a letter from Mr. R. V. Boughton on the above subject which appeared in our issue for August 28.*

TO THE EDITOR OF *The Builder*.

SIR,—Mr. R. V. Boughton's letter on this subject is not so much an unconvincing attempt to make out a case for the "cost-plus" contract, which normally fosters almost every form of inefficiency as a grossly inaccurate comparison between that system and the commonly adopted type of contract based on "measurement."

The designers of the "Target" contract and the M.O.W.P. Schedule were not working, as Mr. Boughton seems to think, "to protect certain interests," but were adapting the established methods of peace time to suit the exigencies of war by removing their one great defect for present use, viz., the delaying of the commencement of a job pending the issue of bills of quantities. True enough the "measured" contract does protect the interests of the building owner as well as paying the contractor for what he legitimately does, but the "cost-plus" contract offers the former only an illimitable financial liability whilst rewarding the contractor for all his tardiness and none of his haste.

Concern at the size of the staffs required to operate current "measured" contracts should be tempered by comparing the size of to-day's jobs with those of peace time. The technical staff is but a platoon of the army required to execute these vast contracts. It is in detailing such staff that Mr. Boughton shows an obvious lack of impartiality, for to debit directors, managers, supervisors, accountants, clerks, typists, welfare officers and labour bonus calculators against only the "measured" contract is palpably incorrect. All of them would be just as much in evidence and just as necessary on a "cost-plus" job.

Turning from staff to contract documents, it is a poor and exceptional set of surveyors that is thrown into confusion by deviations from the contract. In any case, the great bulk of war building is not on a lump-sum basis with quantities forming part of the contract, but is on a "schedule" basis, a system which takes all normal building operations in its stride, and often provides a useful guide for the valuation of abnormal operations. No competent and experienced surveyor is upset by non-schedule items occurring during the course of a contract, and amicable settlements are made every day in connection with such items by the surveyors representing the two parties to a contract. The impossibility of measuring and valuing unusually abnormal work is recognised in the "schedule" contract by the inclusion in every final account of day-work items, but these normally do not form a large percentage of the whole, and merely concede to the contractor the right to remuneration on a "cost-plus" basis for operations which cannot be reduced to a rational labour-material unit.

Mr. Boughton goes on to state his preference for the "cost-plus" contract, subject to three "observations and provisions," not one of which does actually subject this wasteful method of working to any provision, but acts only as a supposedly further argument in its favour. The first observation truly states that "a contractor is usually a level-headed business man, not a philanthropist." Is it likely, then, that that same contractor would expect to work on a system whereby the other contracting party becomes a super-philanthropist? If his expectations were in that direction, then his outlook would be the very antithesis of level-headedness. If a contractor is "much more liable to make a serious loss than any other party to a building contract," it is because the other party is not now engaged in speculative building. The "cost-plus" contract does not, however, preclude the latter from paying exorbitantly for services, or disservices, rendered. Likewise, the incidence of E.P.T. is no excuse for the adoption of "cost-plus" contracts. If it were, every human sloth would be encouraged to become a contractor and a philanthropist to his parasites, at the expense of the community. Mr. Boughton says that if the contractor "does make a good profit there is another department more than willing to take his excess profits," thereby indicating that he considers the two objectives synonymous. But the Government draws a strong distinction between good profits at the level of pre-war years and excess profits at the expense of a nation engaged in a life-or-death struggle.

Mr. Boughton's second observation is a good one from the contractor's side, and the "cost-plus" job certainly assures both the efficient and inefficient, the scrupulous and the unscrupulous contractor a profit under all or any conditions. But it assures the client of nothing, least of all the erection of his building in a reasonable time at a reasonable cost.

The third tabulated statement of Mr. Boughton is a series of detailed explanations of how the Government Departments could operate the "cost-plus" system. Paragraphs (a) and (b) approve the elimination of estimating and bills of quantities by adoption of "cost-plus," but overlook the elimination of a great part of the detailed work of estimating and the painstaking preparation of exact bills of quantities by the issue of the M.O.W.P. Standard Schedule of Prices. It is interesting to note that this schedule was prepared by four eminent contractors, two independent surveyors, one Government surveyor and one barrister. It is in this paragraph that Mr. Boughton says that only such surveying work should be done by Government surveyors as is necessary to check work done by specialists or sub-contractors. If the general contractor is to benefit by the introduction of "cost-plus," why not the sub-contractor also? Paragraph (f) needs some comment, in that the author is under the delusion that an increase in labour rates permanently increases output. The Government labour bonus scheme is a reward not for labour itself, but for the greater effort required to maintain output at a higher level than would be required in times of peace. In his last paragraph Mr. Boughton envisages the return of the "cost-plus" system because of the alleged chaotic condition of supplies and labour. "Chaotic" is too strong a word for the difficulties which have undoubtedly arisen in this respect, and they are difficulties which have been easily surmounted in a financial sense by due allowances in the contractor's favour. Furthermore, the prices of materials are becoming increasingly controlled, and this facilitates the placing of correct rates against measured work.

The "cost-plus" system is the only possible basis for the rare contract which is incapable of measurement; for the great majority of jobs it places a premium on lethargy, the overcrowding of jobs with labour, and inefficiency. That this is well recognised by the public was evident in the first two years of this war, when Parliament and the Press showed a consistent anxiety for the abolition of this type of contract in all war industries. One of the avowed purposes of the M.O.W.P. Schedule is to eliminate the worst elements of "cost-plus" contracts in the building industry. There are many reputable and honourable contractors who would be anxious to maintain their high standard of integrity and efficiency in working a "cost-plus" job, but their labour is casually acquired and, in these days of upheaval, their staff is also fluctuating, generally in a downward direction. So that even if the principals have the best intentions, it does not follow that all the personnel and operatives on any given job are actuated by the same worthy standards, and the incentive to those principals to see that a rapid rate of progress is maintained is far greater when the penalty is a loss of profits rather than the increase in profits which accrues under the "cost-plus" system.

The Government is, to-day, almost the sole employer, directly or indirectly, of the building industry, and it is a well-observed fact that there are men who, in private business relationships, are always anxious to honour their contracts to the best of their ability, but are considerably less perturbed by slackness in their organisations when these are working for that nebulous body "The State," provided that slackness is not to the detriment of their own pockets. The established builder of repute is the last man to decry the fairness of a contract based on "quantities"; what he did decry, in pre-war years, was unrestricted competition and the entry into the tendering lists of "cut-throat" financiers who had very little knowledge of the industry and no interest in building as such. The properly trained quantity surveyor does not assume, from the outset of a job, that the contractor is dishonest, and Mr. Boughton's assertion that he exists only to "stop the 'wicked' contractor 'getting away with it'" is a slur on the profession. Certainly, he does fulfil that purpose if the wicked contractor happens to turn up, but on the great majority of contracts an agreeable settlement is arrived at without that battle of wits, to which Mr. Boughton refers, ever taking place. It is a common experience among quantity surveyors for the contractor, when he is satisfied as to their integrity, experience and impartiality, and when he has the proper rates, to entrust them with the detailed preparation of a final account, and when he checks up with his costs, at the end of the job, his fair profit is seldom missing.

The "cost-plus" contract may possibly have its place as a general thing in a future Utopia, although that, too, is fairly doubtful, but of all present-day combinations of circumstances, that of Government work in war time is the least adapted to "cost-plus" methods, for the results would be diametrically opposed to all those claimed for it.

A. D. TISDALL, P.A.S.I.,
Chartered Quantity Surveyor.
Paisley, Renfrewshire.

In reply to the above letter, Mr. Boughton writes as follows:—

The letter of Mr. A. D. Tisdall very ably explains, in my opinion, the views and interests of probably many surveyors acting for the employer, and at the same time causes me to be more convinced than ever that my contentions, as a

contractors' surveyor, are exceptionally well founded. Although Mr. Tisdall explains many viewpoints, simple analyses of the subjects raised by him in his letter, and those by me in my letter, must surely prove that Mr. Tisdall does not advance any really sound arguments against the master-themes of my letter, which (using a little different wording than I did in my letter) were: (1) the grave financial responsibility placed on a contractor by tendering, under present-day conditions, such responsibility being highly speculative, and (2) the unwarranted cost of staff and waste of time caused by lump-sum, schedule and measurement contract work.

It will be noted that I did not refer to cost-plus methods being particularly applied to private works, but to public works under war-time conditions; therefore, the arguments of Mr. Tisdall as to the employer being a super philanthropist are superfluous, as contracting methods will, it is hoped, revert to normal in the post-war period.

The parties to a contract should be on equitable financial terms, and one, the contractor in the present case, should not be expected to take very serious and abnormal risks, whereas the other party be assured of his "pound of flesh" under abnormal present-day conditions in which the contractor may have to conduct his side of the bargain.

I am equally certain that the present "State Employers" do not wish for a contractor to make a loss on any of their contracts; they know as well as I do that such losses very seriously impair output and general conduct of contract works.

The cost-plus method certainly does not require anything like the number of staff as is necessary for "measurement-contracts." I have had a long experience, mostly serving with the best building and public works contractors, and I recall one cost-plus contract of about £1,000,000 on which I was engaged; the professional agent, his sub-agents and small staff, and the resident engineer with his small staff, ran that contract through speedily and with smoothness which was in sharp contrast to many present-day jobs.

Mr. Tisdall asks "If the general contractor is to benefit by the introduction of 'cost-plus' why not the sub-contractor also"? To answer this is very simple: a sub-contractor, whether he is a supplier of materials only, or a sub-contractor who supplies and fixes his materials, is in a much better position than, and has nothing like the financial risks of, the general contractor. Briefly, the sub-contractor deals in one or a few commodities only, probably knows almost exactly what his materials and labour cost, knows he can get a reasonable price, has the necessary labour for fixing or laying, and very often is a nominated sub-contractor with his price controlled or accepted by the Government. The general contractor carries risks connected with site conditions, all trades, labour and all the items detailed in my letter. In addition, he may have his work disorganised by delays of sub-contractors. Of course, many works of sub-contractors are for lump sums and do not require measurement; if this latter is involved the employer's surveyor could do this under the cost-plus method.

Mr. Tisdall mentions the M.O.W.P. Schedule. The very fine W.D. Schedule contains very many more items than the about 980 in the M.O.W.P. Schedule. The W.D Schedule gives very complete specifications of works (which the M.O.W.P. Schedule does not), allows for many practical conditions (the M.O.W.P. Schedule does not), and does not contain nearly so many loopholes for doubt (with which the M.O.W.P. Schedule bristles), and I feel certain that the W.D. Schedule, which I believe is being revised in respect to percentages on certain trades, and the addition of items to cover modern methods of construction, will form a very sound basis for employers' surveyors to measure and price work upon if it is thought that any contractor is fouling any trust under the cost-plus methods.

In my opinion the majority of the matters discussed by Mr. Tisdall are proof of my statement about the "battle ground for wits" between contractors and employers' surveyors.

# WAR DAMAGE (AMENDMENT) ACT, 1942

**By W. T. CRESWELL, K.C.**

**2.—First Schedule** (*Continued*).

*Clause* 4. By this clause "total loss" is now to indicate wholesale damage which has occurred as that the proper cost for reinstating the hereditament in the form in which it existed immediately before the incidence of the damage would be likely to be more than the difference between (1) the value which the hereditament would have after the completion of the works, and (2) the value which the site alone, without the damage being made good, would eventually have.

In general, the value which a hereditament is likely to have is to be taken as the amount which the fee simple therein might be expected to realise at a sale thereof in the open market, vacant possession being assured. Any restrictive covenant, easement, etc., must be taken into the calculation.

*Clause* 5. This deals with payments to owners of rent charges. A "rent charge" is an annual charge fixed and instituted when land in fee simple is conveyed. In this Act, a rent charge is one (including a fee farm rent) subsisting at law, or capable of subsisting at law. The term means (where an appointment of a rent charge binding on the owner thereof has been made) each of the apportioned parts and not necessarily the entire rent charge.

A rent charge is a burden on the ownership of the land. The owner of the rent charge is entitled to a fixed periodical sum as against the owner of the land. The rent charge is paid out of the rent service; that is, the rent which the owner of the land receives from his tenant for use of the land.

The clause also provides that when a value payment is to be made in respect of war damage, and there is a rent charge subsisting, created out of a proprietary interest in any land in the hereditament (being either the tenancy in fee simple or one granted for a term of 100 years or more), the person who is the owner of the rent charge has a right to receive a share of the value payments, subject to certain conditions which are set out in the clause.

*Clause* 6. The preceding clause is also to extend to Scotland, but again with modifications. For example, for any reference to a rent charge created out of the fee simple in any land there is to be substituted a reference to a feu duty, or ground annual, payable by the owner of the fee simple on such land.

*Clause* 7. This clause provides for the form of payment when making good is wholly or partly abandoned, or the hereditament is compulsorily acquired. The Commission may now make a cost of works payment or payment in respect of the damage so far as it is made good, and a value payment in respect of the damage so far as it is *not* made good.

A cost of works payment is based on the "proper cost," that is, such cost as is reasonable. A value payment represents the depreciation that the war damage has caused in the hereditament judged by hypothetical standards of value.

*Clause* 8. When a value payment is made by the Commission, the disposal of it is to be regulated by reference to the title to the hereditament at the date when the Commission determined to exercise its power to make a value payment, or at the date of the compulsory acquisition of the hereditament.

*Clause* 9. Section 7 (2) of the principal Act provided for notices to be given in the London, Edinburgh and Belfast *Gazettes* of Treasury directions. This clause also gives the Commission power to modify such notices.

*Clause* 10. Section 9 (3) of the principal Act provides for the valuation of a proprietary interest as if free from any "charge or lien for securing money or money's worth." These words are now to be substituted by the words "mortgage or floating charge or to any rent charge."

This "proprietary interest" is the fee simple in the land comprised in the hereditament or property, or in any part of that land, and any tenancy of that land, or any part thereof, other than a short tenancy.

*Clause* 11. Section 9 (4) of the principal Act is amended so that, if at the time when the value payment is made the debt secured by a mortgage has been paid in full, the payment or share is to be disposed of as if the proprietary interest had not been subject to that mortgage.

*Clause* 12. For the words in Section 13 (2) of the principal Act "to the claimant for the payment in question" there is to be substituted the words "to the owner of every proprietary interest in the land on which the works are executed subsisting at the date when the notice is given."

*Clause* 13. Where a Schedule A assessment is reduced, otherwise than through war damage by reason of destruction or demolition of buildings, a reduction of contribution is to follow.

# IN PARLIAMENT.

### Post-War London.

MR. BOSSOM asked the Parliamentary Secretary to the Ministry of Works and Planning how far advanced were the plans and proposals for the post-war revision of the layout of London; and when would Members of Parliament be permitted to see these.

MR. H. STRAUSS said he assumed that MR. BOSSOM referred to the area of the Corporation of the City of London and the London Council. The Minister understood that these authorities had provisional plans of redevelopment in an advanced stage of preparation, but he could not say when they would be completed. The question when and by whom such provisional plans might be inspected was for the authorities themselves to determine.

Replying further, MR. STRAUSS said there was no question at present of a statutory scheme regarding which the Town and Country Planning Act and regulations made provision for inspection. The City Corporation and the L.C.C. were at present under no obligation to publish their provisional plans, and they might have well-founded objections to doing so.

### The New House of Commons.

MR. BOSSOM asked the Parliamentary Secretary to the Ministry of Works and Planning whether he could state the number of places that were being provisionally allowed for members in the sketches that were being prepared of the restored Chamber for His Majesty's Commons on the main floor level; and how was this number decided upon.

MR. G. HICKS said that survey and plans had been made of all the information available of the Chamber as it existed before the damage occurred. Certain very preliminary documents had been prepared, but there were no sketch plans in existence which were intended to show the number of places to be provided or any drawings of the proposed rebuilding which had received sufficiently advanced consideration to be regarded as a definite proposal.

MR. BOSSOM said that such plans were in existence and could be seen; and asked how the number of seats—over 200 more than in the former Chamber—had been obtained.

MR. HICKS said that what had been recently drawn up were reproductions on a uniform scale of reseating plans prepared by Sir Charles Barry in approximately 1860, Mr. E. M. Barry in approximately 1890, and Sir John Taylor in 1893.

### Direction of Employment.

MR. TOUCHE asked the Minister of Labour whether he was aware that some owners of small businesses in the building trade had been directed into other industrial work locally after being given only two or three days' notice before the order became operative; and whether, in view of the hardship involved in such cases, he would take steps to ensure that such persons should be given a longer notice in order to give them time to make the necessary arrangements for their businesses.

MR. TOMLINSON said that the length of notice given to men directed to employment on urgent building contracts must be considered in regard to the importance of manning the work speedily, but there was a right of appeal to an independent Appeal Board which could be exercised by men in cases of the kind indicated by Mr. Touche or in other circumstances where hardship might be involved.

### Central Planning Authority.

MR. SILKIN asked the Parliamentary Secretary to the Ministry of Works and Planning when legislation would be introduced to set up a central planning authority and for the amendment of the Town and Country Planning Act, 1932; and whether local authorities would first be consulted.

MR. H. STRAUSS said that consideration of the Reports of the Scott and Uthwatt Committees, which had only recently been received, was necessary before decision on these matters could be reached. It was proposed to consult the Associations of Local Authorities and the London County Council before legislation to amend the Town and Country Planning Act, 1932, was introduced.

### Government Controllers.

MR. STOKES asked the Minister of Supply whether, following the lead of the Minister of Works and Planning, he would cause all controllers in his department to dissociate themselves for the duration of the war from the firms to which they belonged.

SIR ANDREW DUNCAN said that all controllers appointed to the Raw Materials Controls were required as a condition of their appointment to cease from active participation in business enterprises which were in any way connected with the industry whose materials they were controlling during the tenure of their posts.

### Associated Boards, Ltd.

MR. LIDDALL asked the Minister of Supply what consultation there was with the trade associations in this country before he decided to establish Associated Boards, Limited, to deal with the distribution of fibreboard; how many of the nine companies who were shareholders in Associated Boards, Limited, were controlled by firms registered in countries other than the United Kingdom; and what addition to costs was made by Associated Boards, Limited, to meet its overhead expenses.

SIR ANDREW DUNCAN said that trade associations were not consulted, but all firms recently engaged in importing wallboards from the present overseas sources of supply were consulted and were members of the company. Four of the members were, he understood, connected with firms registered either in North America or Sweden, but he was not aware to what extent they were controlled by such firms. The company was remunerated for its services as the Ministry's agent at the rate of ten shillings per ton of board received into store and £2 5s. per ton delivered to purchasers.

### Housing Acts: Review of Contributions.

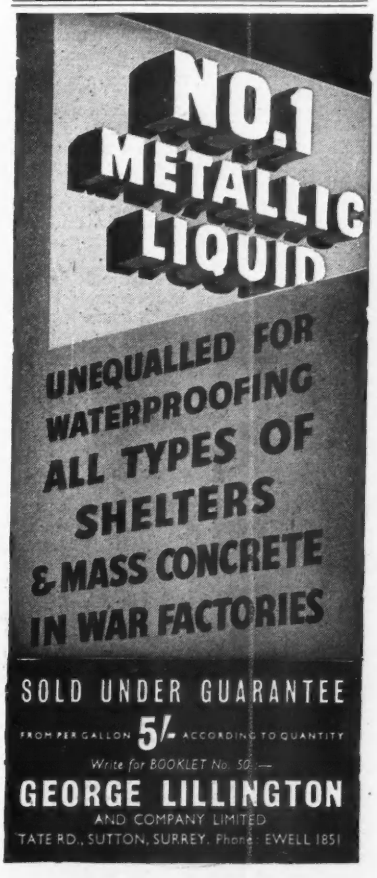
SIR F. FREMANTLE asked the Minister of Health if the Housing Acts (Review of Contributions) Order, 1942, made on August 5, 1942, would hold good till 1944 or 1945, instead of in the year 1941, as prescribed by the Housing (Financial Provisions) Act, 1938.

MISS HORSBRUGH said that the Order related to subsidies in respect of houses completed after September 30, 1942, and would hold good until such date in 1945 as might be fixed as the result of the next triennial review.

### Prefabricated Houses.

SIR P. HURD asked the Minister of Health what preparations were being made by home and overseas contracts and otherwise for prefabricated houses and other means to satisfy the new housing needs of the population as soon as hostilities ceased.

MISS HORSBRUGH said that the Minister had not placed any contracts for the supply of materials for post-war housing but he was actively considering the action which could best be taken and the methods which could best be adopted to meet the housing needs of the country as soon as circumstances permitted a resumption of house building. The particular aspects to which Sir P. Hurd referred were being taken into account as part of the general examination of the question.




## EAST MONMOUTHSHIRE TOWN PLANNING

THE East Monmouthshire Joint Planning Committee has issued its third annual report, which we have received from Mr. M. E. Taylor, A.R.I.B.A., the town planning officer. In this case there are eight constituent authorities—the Monmouth County Council, two Boroughs, one Urban District Council and four Rural District Councils. The latter are extensive, but for the most part rather thinly populated. A great deal of preliminary work has been done on systematic lines, more particularly the studies coming within the programme for the "Civic Survey," and these are developed in detail in the separate report covering the Borough of Abergavenny.

To this Civic Survey Mr. Taylor has evidently given very close attention, and he has handled his report in a most interesting manner. He has obviously been fascinated by the subject; his historical summary, going back to early times, makes good reading. The sections on geology and topography are comprehensive and clearly expressed; these are followed by the statistical examination of housing and occupations and a detailed study of communications, public services, etc. This survey is a good example of the type of investigation which should precede town planning proposals to ensure that the latter be sound and valid. It is unfortunate that it is not at present possible to publish the illustrative maps. H. V. L.

### Law Lectures at Regent-street Poly.

MR. W. T. CRESWELL, K.C., Hon. A.R.I.B.A., will give the first of three lectures on "Contract Law" on Monday next, September 21, at 6 p.m., at the School of Architecture, Regent-street Polytechnic, W. Subsequent lectures will be on September 28 and October 5.

# ROOFING FELTS AND DAMPCOURSES

## RESTRICTIONS ON SALES.

A CIRCULAR issued jointly by the B.M.A., the B.P.M.A. and the N.F.B.M. states that as from August 24 the following regulations apply to :—

(*a*) *Roofing Felts.*—All types, whether manufactured from bitumen or pitch, whether saturated only or saturated and coated, whether reinforced with woven fabric or otherwise; sold as or for any purpose for which roofing felt is used or adaptable. (*b*) *Dampcourse.*—Whether manufactured from bitumen or pitch, or whether the base be of fibre, woven fabric or metal.

But not to (*a*) Flax Felts and Hair Felts; (*b*) Black-out and screening paper, provided the finished weight of materials saturated and/or coated fluxed pitch or bitumen does not exceed 16 lb. per 24 yards super and/or the weight of the unsaturated and/or uncoated base does not exceed 4.75 oz. per square yard, and that such material is not sold or described as "roofing" or "felt."

Sales are restricted to : (1) (*a*) Government Departments; (*b*) Local Government Authorities; (*c*) Public Utility Companies; (*d*) Railway Companies; (*e*) Government contractors quoting contract reference and priority numbers; (*f*) Builders and contractors quoting Civil Building Licence number and reference, and to requisitions certified by Assistant Directors of Emergency Works or Emergency Works Officers of the Ministry of Works and Planning. The certificate to be given by one of the above authorities before the material is sold is shown below.

(2) Agriculturists or private consumers desiring roofing felt for an agricultural purpose, portable building and poultry appliance manufacturers, should sign a declaration stating the purpose for which the material is required. The declaration to be given before the material is sold is identical with the certificate given below, except that the type of building has to be mentioned and building licence and priority number are omitted. All certificates must be endorsed by the merchant "CANCELLED" in ink, or by rubber stamp immediately upon execution of the order.

### Stocks.

MAXIMUM STOCK.—The maximum stock any merchant will be permitted to carry at any one address will not exceed the equivalent of 125 rolls of 24 square yards of all makes and weights of roofing felt, but the quantity and composition of stock permitted to be carried, and the types of felt to be employed for certain purposes will be determined by the Executive Committee according to the conditions prevailing from time to time.

REPLACEMENT OF STOCK.—Merchants placing orders with manufacturers to replace stocks must accompany their order with sufficient cancelled certificates or declarations to cover the quantity of material ordered.

Merchants ordering material to resell to another distributor must complete Form P.2 (in duplicate), which can be obtained from the manufacturer, and should forward the completed form with the order.

### Certificate Authorising Supply of Roofing Felts, Dampcourses, etc.

This certificate must be sent to the supplier to obtain the material required. A merchant executing this order must send this certificate to the manufacturer to obtain material required to replace stock sold. (In the latter case the certificate must be cancelled by the merchant—either in ink or by rubber stamp—immediately on the execution of the order.)

*Name of Supplier*
*Address*
*Trade Description*
*Name of Consumer*
*Address*
*Trade Description*
*Material Required* *Quantity*
*Purpose for which required*
*Address at which to be used*
*Building Licence, Number and Reference*
*or*
*Priority Number and Reference.*

This is to certify that the above material is required for essential work of national importance and urgency.

*Signature*
*Date*

# SURREY BUILDERS' ORGANISATION

THE annual meeting and lunch of the Surrey Builders' Organisation (which incorporates the original Surbiton Builders' War Damage Repairs Association) took place in Surbiton on September 3, with Mr. H. C. Jones, M.I.O.B., in the chair.

Proposing the toast of the Organisation, Ald. P. W. RAMPTON said it was realised that during the war there would be possibly a lot of damage done in the borough which it would be beyond the capacity of the council to deal with. The idea was conceived of passing it over to the builders of the district. The result was an enormous relief to the council, for builders had worked well together with the council. It was a good idea which should persist.

In his reply, the PRESIDENT said that before the war the builders of the district knew each other as competitors and keen rivals for business; they were individualists with little thought for co-operation or for the welfare of each other. Alderman Rampton changed all that when he invited them to organise themselves for service to the community. Between 4,000 and 5,000 houses had been repaired by members in the area, in addition to a large number in neighbouring and London boroughs.

"It was our proud boast," added the President, "that after a night raid our men were on the job, commencing repairs at eight o'clock on the following morning, and as a general rule repairable houses were made wind and weather proof before nightfall. This was a great example of co-operation, and I thank every member for the part he played in this fine achievement.

### Rationalisation.

Responding to the welcome given to the guests by Mr. A. H. JAMES, the TOWN CLERK (Mr. R. H. Wright) referred to the unmistakable tendency in this country towards what had come to be known as rationalisation. Before the war there was a tendency in a similar direction in the building business—the issue of a sort of certificate of merit by which the builder assured a prospective purchaser of a house that he was getting value for money. He felt sure that the Builders' Organisation would not end with the war; there would be machinery set up by which they would have some control over their activities and over the proper sharing out of work.

Commenting on this theme, Mr. A. E. WADE, who also replied, said the scheme of certification and inspection guarantees had not had a fair trial. Only recently the Ministry of Health had announced that something definite would be proposed in that direction when rebuilding commenced. By getting together and making representations in good faith and in a co-operative spirit, builders could do a lot.

On behalf of the members, Mr. James presented the President with a handsome spirit kettle, and Mr. Inwards (the Hon. Secretary) with an entree dish, in appreciation of the services they had rendered to the Organisation.

The annual meeting of the Organisation followed, and the officers were re-elected.

# TRAFFIC GENERATION

IN the course of a paper on Traffic Generation, read recently to the Association for Planning and Regional Reconstruction, MR. M. A. G. LANDAU said that transport was not only a major industry but of additional importance through serving as a factor of production and condition of consumption of most other goods. The wider and indirect effects of the transport system did not always enter the calculations of the transport agencies so that independent research into such effects upon location of industry and population, town-planning, etc., might have its use. The divorce of individual rates from individual costs in the industry, due to the size of the units, led also to a divorce of financial calculation from real costs and real benefits. The first difficulty to tackle was that of finding suitable units in which to express demand, supply and cost, as "passenger-mile" and "ton-mile," did not bring out the economic value of transit-time, which was particularly important in urban traffic. The second difficulty was that "demand for transport" was not one quantity but many, according to the many different uses which could be made of the transport system; it was necessary to split up the general use of facilities into its several component parts for purpose of analysis. Lastly a method was explained by diagrams, by which it was possible to estimate the proportion of traffic which a new arterial road allowing greater speeds would take over from the old roads; as a first approximation that had to be done with simple or normal assumptions. The method was invented by Lieutenant R. B. Hounsfield, R.N.V.R., who was leading an informal group on Road and Rail Co-ordination working with the Association.

In the discussion, the value of analytical methods was questioned, but purely empirical and statistical anticipation was also criticised because it must assume too many things as constant which in fact do change. An analytical approach together with statistical work might give some valid results which could be incorporated in the lay-out of new roads.

# CONTRACTS OPEN

For some contracts still open, but not included in this list, see previous issues. Those with an asterisk are advertised in this number. The dates at the head of paragraphs are those for the submission of tenders; a dagger (†) denotes closing date for applications; the name and address at the end refer to the person from whom particulars may be obtained.

## BUILDING.

### SEPTEMBER 21.

**Richmond T.C.**—Conversion of Carrington Lodge, Sheen-rd., into British Restaurant. B.E. Dep., £2 2s.

### SEPTEMBER 22.

**Croydon C.B.**—Strengthening 8 public surface shelters. B.E., Town Hall. Dep. £1 1s.

**Rochdale C.B.**—Alterations and repairs to existing premises and erection of garages for N.F.S. B.S.

### SEPTEMBER 24.

**Manchester T.C.**—Brick unit garages and various N.F.S. alterations. City A., Town Hall. Dep. £1 1s

### SEPTEMBER 25.

**Bury T.C.**—Alterations to N.F.S. premises. B.E., Bank-st.

**Walthamstow E.C.**—Erection of prefabricated hut with drainage, etc. Frank H. Heaven, (A), Old Monoux Building, High-st., E.17.

### SEPTEMBER 26.

**Richmond (Surrey) T.C.**—Making good damage caused by enemy action to four houses. B.E., Hotham House, Heron Court, Richmond. Dep., £1 1s

### SEPTEMBER 28.

**West Bromwich C.B.**—Construction of water reserve tanks on two sites. B. E. and S., Town Hall. Dep. £1 1s

### SEPTEMBER 30.

**Dervock and District Co-operative Poultry Society, Ltd.**—Construction of egg-grading store. R. Robinson, C.E., Town Hall, Ballymoney.

## PAINTING, ELECTRIC LIGHTING, HEATING, &c.

### SEPTEMBER 21.

**Southport T.C.**—External painting to housing schemes. B. E.'s Office, Town Hall. Dep. £1 1s.

### NO DATE.

**Cornholme Chapel Trustee.**—Outdoor painting of school and chapel. Mr. Helliwell, Sec., 1, Lincoln-st., Cornholms, Todmorden.

## ROAD, SEWERAGE AND WATER.

### SEPTEMBER 30.

**Yorkshire.**—A Drainage Board in Yorkshire invite tenders for the construction of a pumping station. Apply to Engineer to the Board, c/o Box T.H.291, "Contract Journal" Office, 127/130, Temple Chambers, Temple-ave., E.C.4. Dep. £2 2s.

### OCTOBER 3

**Chipping Norton T.C.**—Providing, laying and jointing 400 yds. 3-in. cast-iron mains. W. J. Whettam, B.S., Burford-rd.

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**Builders' Golf for Red Cross.**

In a letter received by Mr. Sidney Neve, the Building Materials Golfing Society, 52-54, High Holborn, W.C.1, Lord Wigram, P.C., Chairman of the Sports Committee, of the Duke of Gloucester's Red Cross and St. John Fund, writes:—"I have noted with pleasure and gratitude that a considerable sum has been contributed by the members of the Building Materials Golfing Society as a result of the appeal which was addressed to the Society in April. With the generous response of the Society in mind I am venturing to hope that the Sports Committee may look to you for further support." Contributions from builder-golfers will be gratefully received by Mr. Neve.

# A.R.P. SCHEMES

## PROVINCIAL

**Barrow-on-Soar.**—R.D.C. propose repairs to domestic shelters at Syston, Thurmaston and Birstall, at £100.

**Downham.**—U.D.C. approved plans for new ambulance garage.

**Horbury.**—U.D.C. propose additional supplementary water supply tanks.

**Manchester.**—T.C. approved trailer fire-pump-houses, for Dunlop Rubber Co., Ltd.

**Newcastle-on-Tyne.** — Tenders accepted by City Council for A.R.P. works: Construction of sorting centre for contaminated clothing at East Walker, Elliott Bros., Otterburn-ter., Newcastle-on-Tyne, £415; additional floor space at A.R.P. stores, G. C. Carr, Bk. New Bridge-st., Newcastle-on-Tyne, £215; improvements to tunnel shelter, Cementation Co., Ltd., Victoria-st., London, £356; strengthening of trench shelters at Buddle-rd. maternity and child welfare centre, E. Thompson, Grey-st., Newcastle-on-Tyne, £160; reinforced brick blast walls at casual warehouses shelter at Vegetable Market, Wilkinson Bros., Addycombe-ter., Newcastle-on-Tyne, £105.

**Northwich.**—R.D.C. propose strengthening public shelter at Hartford cross roads.

**Salford.**—T.C. propose: Adaptation of premises at Pendleton, for A.R.P. Wardens' Corps; additional A.R.P. work for Electricity Dept., at £1,000; improvement of sleeping and domestic accommodation for personnel of N.F.S.

**Stretford.**—T.C. propose: Special gas-cleansing centre at Old Trafford; six additional water supply tanks.

**Wakefield.**—R.D.C. propose emergency mortuaries. Plans by W. E. Massie, S., 18, St. John's North.

## SCOTTISH

**Perth.**—Corporation to erect shelters in various districts to plans by City Architect and Surveyor, John Penman, Municipal-chbrs., Tay-st., Perth.

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**Personal Factor in Accidents.**

Under this title the Medical Research Council of the Industrial Health Research Board has issued Emergency Report No. 3, which outlines the Board's investigations into the subject of "accident proneness" and finds that this is to some extent predictable by psychological tests. Price 4d., the Report is obtainable from H.M. Stationery Office, Kingsway, W.C.2.

FEDERATED EMPLOYERS' INSURANCE ASSOCIATION LTD. ESTABLISHED 1904

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# FUEL ECONOMY

## APPEAL BY THE MINISTER OF PRODUCTION.

MANAGING directors of 30,000 industrial undertakings all over the country have had a special appeal for fuel economy addressed to them by Mr. Oliver Lyttelton, Minister of Production. Enclosed with the Minister's letter is a note by the Ministry of Fuel and Power on coal supplies.

In his letter the Minister of Production says: "The Prime Minister is anxious that the seriousness of the coal position should be fully recognised throughout industry, and he has asked his colleagues to enlist the support of industrial undertakings throughout the country in the measures of economy that are now necessary. In no other way can we maintain supplies for our essential industries and services, with all that means for the successful prosecution of the war. . . ."

The note by the Ministry of Fuel and Power points out that the country is faced, for some time to come, with a serious general shortage of coal, including the high-quality sized and cleaned coals which have become increasingly popular with the development of specialised types of firing plant.

However efficient distribution may be, the maintenance of industrial production will depend on two things:—

(a) Improved methods of fuel consumption resulting in a decreased total demand.

(b) The increased utilisation by industry of the types of fuel not at present in general demand, of which supplies are less short.

The note adds that every effort must be made to work combustion plant as economically as possible, whether for space warming, steam raising or process work, and to reduce fuel requirements to the minimum.

On the advice of the Ministry's Fuel Efficiency Committee, and in collaboration with the Board of Education, discussion courses for management staff, and demonstrations for boiler-house operatives, have been arranged at technical colleges and universities in some 40 industrial areas. Any firm that has not already done so is urged to participate in these training schemes, details of which can be obtained from the Ministry of Fuel and Power. The advice of the regional staff of the Ministry, which includes independent combustion engineers, is readily available to assist consumers with their fuel problems.

The note ends by pointing out that the Government request all managements, in the national interest, to make arrangements at once to accept at least a proportion of their coal supplies in a lower grade than those normally supplied.

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**Post-War Construction, Rhodesia.**

Southern Rhodesian Cabinet Ministers took an optimistic view of the future of the building trade recently when addressing the local committee of the National Industrial Council of the Building Industry. No member of the industry on return from active service, said the Minister of Internal Affairs (Hon. H. H. Davies), need fear unemployment for five years after the war, because provision would have to be made for decent housing schemes, facilities for education and the building of hospitals and clinics. Progress, however, would depend upon the co-ordinated effort of the people and the Government. The Minister of Finance (Hon. Max. Danziger) saw no grounds for believing there would be a post-war industrial slump; nevertheless, there was great need for sound planning to meet that period.

# RATES OF WAGES IN THE BUILDING TRADE

## AS AND FROM 1st FEBRUARY, 1942

**[Every endeavour is made to ensure accuracy, but we cannot be responsible for errors]**

| | Crafts-men. | Lab-ourers. | | Crafts-men. | Lab-ourers. | | Crafts-men. | Lab-ourers. | | Crafts-men. | Lab-ourers. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Aberavon | 1/11 | 1/6½ | Clitheroe | 1/11 | 1/6½ | Isle of Thanet | 1/9 | 1 4½ | Saxmundham | 1/7½ | 1/3½ |
| Aberdare | 1/11 | 1/6½ | Cobham (Surrey) | 1/10 | 1/5½ | Isle of Wight | 1/8½ | 1/4½ | Scarborough | 1/10½ | 1/5½ |
| Abergavenny | 1/11 | 1/6½ | Colchester | 1/10½ | 1/5½ | Keighley | 1/11 | 1/6½ | Scunthorpe | 1/11 | 1/6½ |
| Abingdon | 1/9½ | 1/5 | Colwyn Bay | 1/10 | 1/5½ | Kenilworth | 1/11 | 1/6½ | Selby | 1/11 | 1/6½ |
| Accrington | 1/11 | 1/6½ | Congleton | 1/10½ | 1/5½ | Kettering | 1/10½ | 1/5½ | Sevenoaks | 1/9½ | 1/5 |
| Aldeburgh | 1/7½ | 1/3½ | Coventry | 1/11 | 1/6½ | Kidderminster | 1/9 | 1/4½ | Sheerness | 1/9 | 1/4½ |
| Aldershot | 1/9½ | 1/5 | Cranbrook | 1/9 | 1/4½ | King's Lynn | 1/11 | 1/6½ | Sheffield | 1/11 | 1/6½ |
| Alfreton | 1/11 | 1/6½ | Cranleigh | 1/9 | 1/4½ | Kirkham | 1/10½ | 1/5½ | Shipley | 1/11 | 1/6½ |
| Alnwick | 1/10½ | 1/5½ | Crawley | 1/10½ | 1/5½ | Knowle | | | Shoeburyness | 1/10½ | 1/5½ |
| Altrincham | 1/11 | 1/6½ | Crewe | 1/8 | 1/4 | Lancaster | 1/11 | 1/6½ | Shoreham | 1/10 | 1/5½ |
| Amble | 1/10½ | 1/5½ | Cromer | 1/9 | 1/4½ | Leamington | 1/11 | 1/6½ | Shrewsbury | 1/10½ | 1/5½ |
| Amersham | 1/9½ | 1/5 | Crowborough | 1/9 | 1/4½ | Leatherhead | 1/10 | 1/5½ | Sittingbourne | 1/9 | 1/4½ |
| Ammanford | 1/11 | 1/6½ | Cuckfield | | | Leeds | 1/11 | 1/6½ | Skegness | 1/10 | 1/5½ |
| Andover | 1/9 | 1/4½ | Darlington | 1/11 | 1/6½ | Leicester | 1/11 | 1/6½ | Sleaford | 1/9½ | 1/5 |
| Ardingly | 1/9 | 1/4½ | Darwen | 1/11 | 1/6½ | Leighton Buzzard | 1/8 | 1/4 | Slough | 1/10 | 1/5½ |
| Arundel | 1/9 | 1/4½ | Daventry | 1/9½ | 1/5 | Letchworth | 1/10 | 1/5½ | Southampton | 1/10½ | 1/5½ |
| Ascot | 1/9 | 1/4½ | Deal | 1/9 | 1/4½ | Lewes | 1/9 | 1/4½ | Southend-on-Sea | 1/10½ | 1/5½ |
| Ashby-de-la-Zouch | 1/11 | 1/6½ | Denbigh | 1/10 | 1/5½ | Lichfield | 1/10 | 1/5½ | Southport | 1/11 | 1/6½ |
| Ashford (Kent) | 1/9 | 1/4½ | Derby | 1/11 | 1/6½ | Lincoln | 1/11 | 1/6½ | South Shields | 1/11 | 1/6½ |
| Ashford (Middlesex) | 1/11 | 1/6½ | Devizes | 1/8 | 1/4 | Littlehampton | 1/9 | 1/4½ | Spalding | 1/9 | 1/4½ |
| Ashington | 1/10½ | 1/5½ | Dewsbury | 1/11 | 1/6½ | Liverpool | ‡§2/1 | ¶ | Stafford | 1/10½ | 1/5½ |
| Ashtead | 1/11 | 1/6½ | Didcot | 1/9 | 1/4½ | Llandudno | 1/10 | 1/5½ | Staines | 1/10 | 1/5½ |
| Ashton-under-Lyne | 1/11 | 1/6½ | Diss | 1/7½ | 1/3½ | Llanelly | 1/11 | 1/6½ | Stamford | 1/10 | 1/5½ |
| Aylesbury | 1/9 | 1/4½ | Doncaster | 1/11 | 1/6½ | London— | | | Stevenage | 1/10 | 1/5½ |
| Aylsham | 1/8 | 1/4 | Dorchester | 1/8½ | 1/4½ | 12m. radius | *2/0½ | 1/7½ | Stockport | 1/11 | 1/6½ |
| Bagshot | 1/9 | 1/4½ | Dorking | 1/9½ | 1/5 | 12-15m. radius | *2/0 | 1/7 | Stockton-on-Tees | 1/11 | 1/6½ |
| Banbury | 1/9 | 1/4½ | Dover | 1/9 | 1/4½ | Long Eaton | 1/11 | 1/6½ | Stoke-on-Trent | 1/11 | 1/6½ |
| Barnsley | 1/11 | 1/6½ | Dovercourt | 1/9 | 1/4½ | Longton | 1/11 | 1/6½ | Stourbridge | 1/11 | 1/6½ |
| Barnstaple | 1/9 | 1/4½ | Driffield | 1/9½ | 1/5 | Loughborough | 1/11 | 1/6½ | Stourport | 1/10½ | 1/5½ |
| Barrow-in-Furness | 1/11 | 1/6½ | Droitwich | 1/10½ | 1/5½ | Louth | 1/9½ | 1/5 | Stowmarket | 1/8 | 1/4 |
| Barry | 1/11 | 1/6½ | Dudley | 1/11 | 1/6½ | Lowestoft | 1/9 | 1/4½ | Stratford-on-Avon | 1/10 | 1/5½ |
| Basingstoke | 1/9½ | 1/5 | Dunstable | 1/9½ | 1/5 | Luton | 1/10½ | 1/5½ | Stroud | 1/10 | 1/5½ |
| Bath | 1/9 | 1/4½ | Durham City | 1/11 | 1/6½ | Macclesfield | 1/10½ | 1/5½ | Sunderland | 1/11 | 1/6½ |
| Batley | 1/10½ | 1/5½ | Eastbourne | 1/10 | 1/5½ | Maidenhead | 1/10 | 1/5½ | Sutton Coldfield | 1/11 | 1/6½ |
| Beaconsfield | 1/11 | 1/6½ | E. Glam. (Mon. Val.) | 1/11 | 1/6½ | Maidstone | 1/9½ | 1/5 | Swaffham | 1/7½ | 1/3½ |
| Beccles | 1/9½ | 1/5 | East Grinstead | 1/9 | 1/4½ | Malvern | 1/9½ | 1/5 | Swanage | 1/9 | 1/4½ |
| Bedford | 1/7½ | 1/3½ | Edenbridge | 1/9 | 1/4½ | Manchester | 1/11 | 1/6½ | Swansea | 1/11 | 1/6½ |
| Berkhamsted | 1/10½ | 1/5½ | Ely | 1/8 | 1/4 | Manningtree | 1/8 | 1/4 | Swindon | 1/9½ | 1/5 |
| Berwick | 1/9 | 1/4½ | Epping | 1/11 | 1/6½ | Mansfield | 1/11 | 1/6½ | Tamworth | 1/10½ | 1/5½ |
| Beverley | 1/10½ | 1/5½ | Exeter | 1/10½ | 1/5½ | March | 1/8 | 1/4 | Taunton | 1/9½ | 1/5 |
| Bexhill-on-Sea | 1/11 | 1/6½ | Exmouth | 1/9½ | 1/5 | Margate | 1/9 | 1/4½ | Tenterden | 1/9 | 1/4½ |
| Bideford | 1/9½ | 1/5 | Fakenham | 1/8 | 1/4 | Market Harborough | 1/10 | 1/5½ | Thames Haven | 1/11 | 1/6½ |
| Biggleswade | 1/9 | 1/4½ | Falmouth | 1/9½ | 1/5 | Matlock | 1/9½ | 1/5 | Thetford | 1/8½ | 1/4½ |
| Billericay | 1/9 | 1/4½ | Fareham | 1/10 | 1/5½ | Melton Constable | 1/7½ | 1/3½ | Thorpe Bay | 1/10½ | 1/5½ |
| Birchington | 1/8½ | 1/4½ | Faversham | 1/9 | 1/4½ | Melton Mowbray | 1/10 | 1/5½ | Todmorden | 1/11 | 1/6½ |
| Birkenhead | 1/9 | 1/4½ | Felixstowe | 1/10 | 1/5½ | Merthyr | 1/11 | 1/6½ | Tonbridge | 1/9½ | 1/5 |
| Birmingham | ‡§2/1 | ¶ | Filey | 1/9½ | 1/5 | Middlesbrough | 1/11 | 1/6½ | Torquay | 1/10½ | 1/5½ |
| Bishop Auckland | †1/11 | 1/6½ | Fleetwood | 1/11 | 1/6½ | Middleton | 1/11 | 1/6½ | Totnes | 1/9 | 1/4½ |
| Bishop's Stortford | 1/11 | 1/6½ | Flint | 1/11 | 1/6½ | Middlewich | 1/11 | 1/6½ | Trowbridge | 1/8 | 1/4 |
| Blackburn | 1/11 | 1/5½ | Folkestone | 1/9 | 1/4½ | Milford Haven | 1/10½ | 1/5½ | Truro | 1/8½ | 1/4½ |
| Blackpool | 1/11 | 1/6½ | Frinton-on-Sea | 1/9 | 1/4½ | Morecambe | 1/9½ | 1/5 | Tunbridge Wells | 1/9½ | 1/5 |
| Blyth | 1/11 | 1/6½ | Frome | 1/8 | 1/4 | Morley | 1/11 | 1/6½ | Uppingham | 1/10½ | 1/5½ |
| Bognor Regis | 1/9 | 1/4½ | Gainsborough | 1/10 | 1/5½ | Mundesley | 1/8 | 1/4 | Uttoxeter | 1/10 | 1/5½ |
| Bolton | 1/11 | 1/6½ | Gateshead | 1/11 | 1/6½ | Nantwich | 1/10½ | 1/5½ | Wakefield | 1/11 | 1/6½ |
| Bournemouth | 1/10 | 1/5½ | Gillingham (Kent) | 1/10 | 1/5½ | Nelson | 1/11 | 1/6½ | Walsall | 1/11 | 1/6½ |
| Bracknell | 1/9 | 1/4½ | Glossop | 1/11 | 1/6½ | Newark-on-Trent | 1/10½ | 1/5½ | Walsden | 1/11 | 1/6½ |
| Bradford | 1/11 | 1/6½ | Gloucester | 1/10½ | 1/5½ | Newbury | 1/9 | 1/4½ | Walton-on-Naze | 1/9 | 1/4½ |
| Bradford-on-Avon | 1/8 | 1/4 | Godalming | 1/9 | 1/4½ | Newcastle-on-Tyne | 1/11 | 1/6½ | Ware | 1/10½ | 1/5½ |
| Braintree | 1/9 | 1/4½ | Goole | 1/11 | 1/6½ | Newcastle-u.-Lyme | 1/11 | 1/6½ | Warminster | 1/8 | 1/4 |
| Brentwood | 1/10½ | 1/5½ | Gosport | 1/10½ | 1/5½ | New Forest | 1/9 | 1/4½ | Warrington | 1/11 | 1/6½ |
| Bridgwater | 1/9½ | 1/5 | Grantham | 1/10 | 1/5½ | Newmarket | 1/9 | 1/4½ | Warwick | 1/11 | 1/6½ |
| Bridlington | 1/10½ | 1/5½ | Gravesend | 1/10½ | 1/5½ | Newport, Mon. | 1/11 | 1/6½ | Wellington R.D. | 1/10½ | 1/5½ |
| Brighouse | 1/11 | 1/6½ | Great Yarmouth | 1/9 | 1/4½ | Newport Pagnell | 1/9 | 1/4½ | Welwyn | 1/10 | 1/5½ |
| Brighton | 1/10 | 1/5½ | Grimsby | 1/11 | 1/6½ | Northampton | 1/11 | 1/6½ | Welwyn Gar. City | 1/11 | 1/6½ |
| Bristol | 1/11 | 1/6½ | Guildford | 1/9 | 1/4½ | Norwich | 1/11 | 1/6½ | Wells (Norfolk) | 1/7½ | 1/3½ |
| Broadstairs | 1/9 | 1/4½ | Guilsborough | 1/9½ | 1/5 | Nottingham | 1/11 | 1/6½ | West Bromwich | 1/11 | 1/6½ |
| Bromsgrove | 1/10½ | 1/5½ | Halifax | 1/11 | 1/6½ | Nuneaton | 1/11 | 1/6½ | Westcliff-on-Sea | 1/10½ | 1/5½ |
| Buc' ley | 1/11 | 1/6½ | Hanley | 1/11 | 1/6½ | Oakham | 1/9½ | 1/5 | Weston-super-Mare | 1/10 | 1/5½ |
| Bungay | 1/7 | 1/3½ | Harpenden | 1/10 | 1/5½ | Oldham | 1/11 | 1/6½ | Weybridge | 1/10 | 1/5½ |
| Burnham-on-Crouch | 1/7½ | 1/3½ | Harrogate | 1/11 | 1/6½ | Ormskirk | 1/11 | 1/6½ | Weymouth | 1/9 | 1/4½ |
| Burnley | 1/11 | 1/6½ | Hartlepools | 1/11 | 1/6½ | Oxford | 1/10½ | 1/5½ | Whitby | 1/10 | 1/5½ |
| Burslem | 1/11 | 1/6½ | Harwich | 1/9 | 1/4½ | Oxted | 1/9½ | 1/5 | Whitstable | 1/9 | 1/4½ |
| Burton-on-Trent | 1/11 | 1/6½ | Haslemere | 1/9 | 1/4½ | Paignton | 1/10½ | 1/5½ | Widnes | 1/11 | 1/6½ |
| Bury | 1/11 | 1/6½ | Hastings | 1/9 | 1/4½ | Peterborough | 1/10½ | 1/5½ | Wigan | 1/11 | 1/6½ |
| Bury St. Edmunds | 1/8½ | 1/4½ | Hatfield | 1/10½ | 1/5½ | Plymouth | 1/11 | 1/6½ | Wigton | 1/9½ | 1/5 |
| Buxton | 1/10½ | 1/5½ | Haywards Heath | 1/9 | 1/4½ | Pontefract | 1/11 | 1/6½ | Willington | 1/11 | 1/6½ |
| Byfleet | 1/9½ | 1/5 | Hednesford | 1/10½ | 1/5½ | Pontypridd | 1/11 | 1/6½ | Wilmslow | 1/11 | 1/6½ |
| Cambridge | 1/11 | 1/6½ | Hemel Hempstead | 1/10 | 1/5½ | Port Talbot | 1/10½ | 1/5½ | Winchester | 1/9½ | 1/5 |
| Canterbury | 1/9 | 1/4½ | Henley-on-Thames | 1/9 | 1/4½ | Portsmouth | 1/11 | 1/6½ | Windermere | 1/9½ | 1/5 |
| Cardiff | 1/11 | 1/6½ | Hereford | 1/9 | 1/4½ | Preston | 1/9 | 1/4½ | Windsor | 1/10 | 1/5½ |
| Carlisle | 1/11 | 1/6½ | Herne Bay | 1/9 | 1/4½ | Pulborough | | | Wisbech | 1/8½ | 1/4½ |
| Carnforth | 1/11 | 1/6½ | Hertford | 1/10½ | 1/5½ | Ramsgate | 1/9 | 1/4½ | Witham | 1/9 | 1/4½ |
| Castleford | 1/11 | 1/6½ | Heysham | 1/11 | 1/6½ | Reading | 1/10½ | 1/5½ | Woking | 1/9½ | 1/5 |
| Caterham | 1/11 | 1/6½ | Hitchin | 1/10 | 1/5½ | Redditch | 1/10½ | 1/5½ | Wokingham | 1/9 | 1/4½ |
| Chard | 1/8 | 1/4 | Hoddesdon | 1/10½ | 1/5½ | Redhill | 1/9½ | 1/5 | Wolverhampton | 1/11 | 1/6½ |
| Chatham | 1/10 | 1/5½ | Holt (Norfolk) | 1/7½ | 1/3½ | Ripon | 1/9½ | 1/5 | Woodbridge | 1/8½ | 1/4½ |
| Chelmsford | 1/10½ | 1/5½ | Horley | 1/9 | 1/4½ | Rochdale | 1/11 | 1/6½ | Worcester | 1/10½ | 1/5½ |
| Cheltenham | 1/10 | 1/5½ | Horsham | 1/9 | 1/4½ | Rochester | 1/10 | 1/5½ | Workington | 1/9½ | 1/5 |
| Chepstow | 1/10½ | 1/5½ | Horwich | 1/11 | 1/6½ | Rugby | 1/11 | 1/6½ | Worksop | 1/10½ | 1/5½ |
| Chertsey | 1/10 | 1/5½ | Huddersfield | 1/11 | 1/6½ | St. Albans | 1/10½ | 1/5½ | Worthing | 1/9 | 1/4½ |
| Chester | 1/11 | 1/6½ | Hull | 1/11 | 1/6½ | St. Helens | 1/11 | 1/6½ | Wrexham | 1/10½ | 1/5½ |
| Chesterfield | 1/11 | 1/6½ | Hunstanton | 1/8 | 1/4 | St. Neots | 1/8½ | 1/4½ | Wroxham | 1/8½ | 1/4½ |
| Chichester | 1/9 | 1/4½ | Huntingdon | 1/8½ | 1/4½ | Saffron Walden | 1/8 | 1/4 | Wycombe | 1/10 | 1/5½ |
| Chorley | 1/11 | 1/6½ | Ilfracombe | 1/8½ | 1/4½ | Salisbury City | 1/8½ | 1/4½ | Wymondham | 1/8 | 1/4 |
| Cirencester | 1/8½ | 1/4½ | Ingatestone | 1/9 | 1/4½ | Salisbury Plain | 1/10 | 1/5½ | Yeovil | 1/9½ | 1/5 |
| Clacton | 1/9 | 1/4½ | Ipswich | 1/9½ | 1/5 | Sawbridgeworth | 1/9½ | 1/5 | York | 1/11 | 1/ 6½ |
| Cleveleys | 1/11 | 1/6½ | | 1/10½ | 1/5½ | | | | | | |

* Painters ½d. less than other Craftsmen. † Plus 2d. per working day. ‡ Plasterers 2/1½.

¶ Tradesman's Labourers, 1/7½. Navvies and General Labourers, 1/6½.

§ Joiners, Plumbers, Bricklayers, Tilers and Masons receive 2/- per week or 4d. per day Tool Money.

NOTE.—Carpenters and Joiners in all Towns and Districts (other than Birkenhead and Liverpool) receive 2d. per day Tool Allowance.

For Building Trade Wages in Scotland, see page 254

# PRICES CURRENT OF MATERIALS*

**Note:** Owing to the exceptional circumstances which prevail at the present time, prices of materials should be confirmed by inquiry. The prices of soft woods are for cash on delivery. At present linseed oil and genuine spirits of turpentine can only be supplied in cans in small quantities.

## BRICKS, &c.

| | £ s. d. |
|---|---|
| First Hard Stocks | 4 13 0 |
| Second Hard Stocks | 4 6 0 |
| Mild Stocks | 3 13 0 |
| Single Rough Stocks | 3 7 0 |
| Common Stocks | 2 17 6 |

All loaded free into lorry at the works. The question of haulage is still very difficult and prices must be obtained from job to job. *In addition*, there will be the Levy under the Bricks (Charges) Order, 1942, of 3s. per 1,000.

| 2½ in. Phorpres. A discount of 6d. 1,000 only monthly account. | King's Cross Station per 1,000 s. d. | To sites in W.C. District per 1,000 s. d. |
|---|---|---|
| Pressed | 56 9 | 63 3 |
| Keyed | 58 9 | 65 3 |
| Single Bullnose | 76 9 | 83 3 |
| Rustics | 76 9 | 83 3 |
| Whites | 77 3 | 83 3 |
| White Midhurst Best selected (delivered London site) | | £ s. d. 5 10 0 |
| Best blue Pressed Staffs. (London Stns.) | | 11 12 0 |
| Do. Bullnose (London Stns.) | | 12 2 0 |
| Blue Wire Cuts (London Stns.) | | 10 9 6 |

Best Stourbridge Fire Brick (London Stns.) :—

| £ s. d. | | £ s. d. |
|---|---|---|
| 2½ in. ..... 10 0 0 | 3 in. ..... | 12 0 0 |

Glazed Bricks. (London Stns.)

| | | | |
|---|---|---|---|
| Best White Ivory and Salt Glazed | | D'ble Str'tch'rs D'ble Headers | 36 10 0 33 10 0 |
| Stretcher ..... 28 0 0 | | One side&two ends | 37 10 0 |
| Headers ..... 27 10 0 | | Two sides&one end | 38 10 0 |
| Quoins, Bullnose and 4½ in. Flats | 34 10 0 | Splays and Squints ..... | 36 0 0 |

Second Quality, £2 per 1,000 less than best. Cream and buff, £2 extra over white. Other colours. Hard Glaze. £5 10s. extra over white.

Add Levy on Bricks. 3/- per 1,000 except Glazed Bricks.

## PARTITION SLABS.

Delivered on site London Area.

"Phorpres" Hollow Partition Blocks.

| | s. d. | | s. d. |
|---|---|---|---|
| 2" per yd. sup. .... | 2 8 | 3" per yd. sup. .. | 3 6 |
| 2½" " " .... | 2 11 | 4" " " .. | 3 10 |

Clinker Concrete.

| | | | |
|---|---|---|---|
| 2" per yd. sup. .... | 1 11 | 3" per yd. sup. .. | 2 6 |
| 2½" " " .... | 2 3 | 4" " " .. | 3 6 |

Cranham Terra Cotta.

| | |
|---|---|
| Size 12 x 9 x 2" per yd. super | 2 8 |
| Size 12 x 9 x 2½ " " | 2 11 |
| Size 12 x 9 x 3" " " | 3 6 |
| Size 12 x 9 x 4" " " | 3 10 |

Hempstead—Keyed Two Sides.

| | | | |
|---|---|---|---|
| 12" x 9" x 2" ..... | 2 8 | 12" x 9" x 3" .... | 3 6 |
| 12" x 9" x 2½" .... | 2 11 | 12" x 9" x 4" .... | 3 10 |

Per yard super d/d. Free on site, London.

Plus 2d. for smooth one side, and 4d. for smooth both sides.

## STONE.

| | s. d. |
|---|---|
| Bath Stone.—Delivered in railway trucks at Westbourne Park, Paddington, G.W.R., or South Lambeth, G.W.R., per ft. cube ..... | 3 3½ |
| Beer Stone—Random Block— Free on rail at Seaton Station .. per ft cube | 2 3 |
| Delivered free on rail Nine Elms, S.R. " | 3 1½ |
| Selected approximate size one way, 1d. per cubic ft. extra, selected approximately three sizes or for special work, 3d. per cubic ft. extra. | |
| Portland Stone— Brown Whitbed, in random blocks of 20 ft. average, delivered in railway trucks at Nine Elms, S. Rly., South Lambeth Station, G.W.R., and Westbourne Park, Paddington, G.W.R., .....per ft. cube | 4 7 |
| Do. do. delivered on road waggons as above stations .....per ft. cub. | 4 7 |
| White basebed, 3d. per ft. cube extra. | |
| Note.—1d. per ft. cube extra for every ft. over 20 ft. *average* and ½d. beyond 30 ft. | |
| Hopton-Wood Stone— F.O.R. Quarries, Wirksworth, Derbyshire, Random blocks from 10 ft. and over P.ft.cb. | s. d. 13 2 |
| Sawn two sides ..... | 26 11 |
| Sawn three or four sides ..... | 31 11 |
| York Stone, Blue—*Robin Hood Quality.* Delivered at any Goods Station, London. | |
| 6 in. sawn two sides landings to sizes (under 30 ft. super) .....per ft. super | 5 6 |
| 6 in. rubbed two sides, ditto .... " | 6 3 |
| 3 in. sawn two sides slabs (random sizes) ..... " | 2 7 |
| 2 in. to 2½ in. sawn one side slabs (random sizes) (paving) ..... " | 1 8½ |
| 1¼ in. to 2 in. ditto ..... " | 1 4½ |
| Hard York— Delivered at any Goods Station, London. | |
| Scrappled random blocks .....per ft. cube | 6 10 |
| 6 in. sawn two sides landings to sizes (under 40 ft. super) .....per ft.super | 5 7½ |
| 6 in. rubbed two sides, ditto .... " | 6 9 |
| 4 in. sawn two sides slabs (random sizes) ..... " | 3 5 |
| 3 in. ditto ditto ..... " | 2 8 |
| 2 in. self-faced random flags.....per yd. super | 8 9 |

## CAST STONE.

Delivered in London area in full van loads, per ft. cube: Plain, 7s. 6d. Moulded, 8s. 6d. Small section cills and copings, 11s.

## SAND.

| | | |
|---|---|---|
| Thames Ballast .... | 10s. 0d. per yd. | delivered 2 miles radius Paddington. |
| Pit Ballast ..... | 9s. 6d. " " | |
| Pit Sand ..... | 12s. 0d. " " | |
| Washed Sand .... | 13s. 0d. " " | |
| ¼ in. Shingle .... | 10s. 6d. " " | |
| ¼ in. Broken Brick | 16s. 0d. " " | |
| Pan Breeze ..... | 10s. 0d. " " | |

## CEMENT.

Best British Portland Cement. Standard Specification, delivered London area. £ s. d.

| | |
|---|---|
| 6 ton loads and upwards site ..... per ton | 2 11 0 |
| 1 ton to 6 tons site ..... | 2 14 0 |
| Alongside Vauxhall in 80 ton lots ..... | 2 8 6 |
| "Ferrocrete" Rapid Hardening Cement— 6 ton loads and upwards site ..... | 2 17 0 |
| 1 ton to 6 tons site ..... | 3 0 0 |
| Alongside Vauxhall in 80 ton lots ..... | 2 14 6 |
| "Aquacrete" Water Repellent, "Blue Circle" cement, 30s. per ton on ordinary "Blue Circle" prices. | |
| "Colorcrete" Nos. 1 and 2. Coloured rapid Hardening Portland Cement in 6 ton lots .. | 4 11 0 |
| "Colorcrete" not rapid hardening, according to colour, from £7 to £15 10s. per ton. | |
| "Snowcrete" White Portland Cement (in free paper bags) .....10 5 0 | |
| "417" Cement (Ultra Rapid Hardening) Delivered Site London Area in 6 tons lots and upwards ..... | 3 11 0 |
| Plus packages at current prices. | |
| Super Cement (Waterproof), bags extra .... | 4 1 0 |

Note.—Jute sacks charged at 35s. 6d. nett per ton (20 sacks) for quantities of or exceeding one ton. Less than one ton 1s. 9½d. nett each.

Credit 1s. 6d. nett each when returned in good condition within two weeks.

| | £ s. d. | | £ s. d. |
|---|---|---|---|
| Romance ment | 8 10 0 | Keene's Cement, White | 7 0 0 |
| Parian Cement | 7 0 0 | " Pink | 6 10 0 |

Cemen tone Colours for cement according to tints per cwt. from £3 5s. 0d.

## SLATES.

First quality slates from Penrhyn or Portmadoc carriage paid in full truck loads to London Rate Station. Per 1,000 actual.

| | £ s. d. | | £ s. d. |
|---|---|---|---|
| 24 by 12 .... | 45 5 0 | 18 by 10 .... | 24 0 0 |
| 22 by 12 .... | 37 17 6 | 18 by 9 .... | 22 12 6 |
| 22 by 11 .... | 34 2 6 | 16 by 10 .... | 21 10 0 |
| 20 by 12 .... | 33 0 0 | 16 by 8 .... | 16 12 6 |
| 20 by 10 .... | 30 5 0 | | |

## PLASTER.

| | £ s. d. | | £ s. d. |
|---|---|---|---|
| Coarse, Pink .... | 4 0 0 | Sirapite, Coarse .. | 4 5 6 |
| " White .. | 4 7 6 | " Finish .. | 4 13 6 |
| Pioneer ..... | 4 5 0 | | |

Above prices for 4-ton loads and over London Area.

| | | | |
|---|---|---|---|
| Best Ground Blue Lias Lime .... | 3 7 6 | Grey Stone Lime Chalk Lime .... | 2 17 6 2 17 6 |
| Granite Chippings | 1 15 0 | Hair per cwt. .. | 3 5 0 |

Note.—Sacks are charged 1s. 9d. each, and credited 1s. 6d. if returned in good condition within three months, carriage paid.

Stourbridge Fireclay in paper bags, £2 12s. 6d. in 6-ton lots at railway depot.

## TILES.

Delivered at London rate stations in full truck loads of not less than 6 tons..... Per 1,000 f.o.r. London.

| | |
|---|---|
| Best machine-made tiles from Broseley or Staffordshire district ..... | £5 15 0 |
| Ditto hand-made ditto ..... | 6 18 6 |
| Ornamental ditto ..... | 7 5 0 |
| Hip and valley tiles (per dozen) Hand-made ..... | 0 14 0 |
| Machine-made ..... | 0 13 6 |

## HARD WOOD.

1 INCH AND UP THICK.

Average price for prime quality. Foot cube.

| | s. d. | | £ s. d. |
|---|---|---|---|
| Dry English Wainscot Billets.. | 16 0 | to | 0 18 0 |
| Dry Slavonian Billet Wainscot .. | 17 0 | to | 1 0 0 |
| Dry Cuba Mahogany logs ..... | 21 0 | to | 1 4 0 |
| Square-edged Honduras Mahogany ..... | | | 0 16 6 |
| Log Cut Honduras Mahogany ..... | | | 0 17 6 |
| American Figured Oak ..... | | | 0 13 0 |
| American Plain Oak ..... | | | 0 12 6 |
| Jap. Figured Oak ..... | | | 0 13 0 |
| Jap. Plain Oak ..... | | | 0 12 6 |
| Teak ..... | | | 0 15 6 |
| American Whitewood ..... | | | 0 12 6 |
| African Whitewood ..... | | | 0 8 0 |
| African Mahogany ..... | | | 0 11 0 |
| Australian Walnut ..... | | | 0 19 0 |
| Australian Silky Oak ..... | | | 0 12 6 |
| Best Scotch glue ..... per cwt. | | | 5 0 0 |
| Liquid glue .....per gallon | | | 1 2 0 |

## SOFT WOOD.

| Merchantable British Columbian | Minimum. £ s. d. | Pine Maximum. £ s. d. |
|---|---|---|
| Scantlings in imported sizes, 2 in. by 3 in. to 4 in. by 11 in. | 43 10 0 | 53 0 0 |

PLANED BOARDS.

Prime Clear British Columbian Pine.

| | Per standard. £ s. d. |
|---|---|
| 1 in. by 11 in. } 1 in. by 9 in. } ..... | 67 10 0 |

| | Per square. s. d. |
|---|---|
| 1 in. plain edge flooring ..... | 53 0 |
| 1½ in. ditto ..... | 66 6 |
| 1 in. tongued and grooved ..... | 53 0 |
| 1½ in. ditto ..... | 66 6 |

MATCHING.

| | Per square. s. d. |
|---|---|
| ¾ in. ..... | 37 6 |
| ½ in. ..... | 42 0 |
| 1 in. ..... | 55 0 |

## PLUMBERS' BRASS WORK.

Delivered in London.

M.O.H.

S.D. Bibcocks, Crutch Head, for Iron

| ½ in | ¾-in. |
|---|---|
| 30/- | 44/6 per doz. |

Toilet Bib Cocks for Iron.

| ½ in. | ¾ in. |
|---|---|
| 42/- | 60/- per doz |

S.D. Stop Cocks for Iron.

| ½ in. | ¾ in. | 1 in. | 1¼ in. | 1½ in. | 2 in. |
|---|---|---|---|---|---|
| 29/6 | 45/- | 81/6 | 195/- | 272/- | 453/- per doz |

S.D.S. Cocks with two Unions for Lead.

| ½ in. | ¾ in. | 1 in. | 1¼ in. | 1½ in. | 2 in. |
|---|---|---|---|---|---|
| 45/- | 77/6 | 123/- | 240/- | 372/- | 624/- per doz. |

Double Nut Boiler Screws.

| ½ in. | ¾ in. | 1 in. | 1¼ in. | 1½ in. | 2 in. |
|---|---|---|---|---|---|
| 5/6 | 6/8 | 11/- | 24/- | 36/- | 56/- per doz. |

Heavy Croydon Ball Valves.

| ½ in. | ¾ in. | 1 in. | 1¼ in. | 1½ in. |
|---|---|---|---|---|
| 36/- | 65/- | 98/- | 195/- | 264/- per doz. |

Caps and Screws.

| 1¼ in. | 1½ in. | 2 in. | 3 in. | 3½ in. | 4 in. |
|---|---|---|---|---|---|
| 11/9 | 14/5 | 21/6 | 37/9 | 54/- | 59/6 per doz |

Brass Sleeves.

| 1¼ in. | 2 in. | 3 in. | 3½ in. | 4 in. |
|---|---|---|---|---|
| 10/9 | 13/6 | 25/- | 37/- | 46/- per doz. |

Lead Traps with Brass Cleaning Screws.

| | 1½×6 lbs. | 1½×6 lbs. | 2×7 lbs. | 3×7 lbs. |
|---|---|---|---|---|
| Lead P. | 26/- | 34/- | 55/- | 92/- per doz. |
| Lead S. | 34/- | 41/- | 67/ | 115/- per doz. |

Solder.—Plumbers', 1/5; Tinmen's, 1/9. Blow pipe. 2/- per lb.

* The information given on this page has been specially compiled for The Builder, and is copyright. The aim in this list is to give, as far as possible, the *average* prices of materials, no necessarily the highest or lowest. Quality and quantity obviously affect prices—a fact which should be remembered by those who make use of this information. Prices are subject to 2½ per cent. cash discount.

PRICES CURRENT OF MATERIALS—(*contd.*)

## METALS.

JOISTS, GIRDERS, &c., TO LONDON STATION PER TON—

| | £ s. d. |
|---|---|
| R.S. Joists, cut and fitted | £23 10 0 |
| Plain Compound Girders | 26 0 0 |
| Stanchions | 28 10 0 |
| In Roof Work | 33 10 0 |

NOTE.—These prices are for standard pieces and not special pieces of an awkward nature.

MILD STEEL ROUNDS.—To London Stations, per ton.

| Diameter. | £ s. d. | Diameter. | £ s. d. |
|---|---|---|---|
| ¼ in. | 23 0 0 | ⅝ in. to ½ in. | 21 10 0 |
| ⅜ in. | 22 0 0 | ⅝ in. to 2½ in. | 21 0 0 |

WROUGHT TUBES AND FITTINGS.

Deliveries from works.

Deliveries from London stock further 2½ % gross.

10/17

| | Tubes. ½"/6" % | Tubulars. and ½"/6" % | 19/24 % | Flanges. ½"/2" % | 2½"/6" % |
|---|---|---|---|---|---|
| Light weight | 51½ | — | 47½ | 51 | 57½ |
| Heavy weight | 44 | 44 | 39½ | 41 | 49½ |
| Galv.lightweight | 40½ | — | 38½ | 39½ | 48½ |
| Galv.heavyweight | 31 | 31 | 31 | 29½ | 41 |

Tubes and tubulars sizes ½"/1" inclusive, charged extra of 5% less gross.

Fittings. Figs. 25/34 5% less gross discount.

Terms.—Nett cash end of month following date of Invoice. Carriage paid on lots of £10 nett value and over.

C.I. HALF-ROUND GUTTERS—London Prices ex Works. per yd. in 6 ft. lengths.

| | Gutters. | Nozzles. | Stop ends. |
|---|---|---|---|
| 3 in. | 1/5½ | 1/2½ | 4½d. |
| 3½ in. | 1/7 | 1/4 | 4½d. |
| 4 in. | 1/7 | 1/6 | 6½d. |
| 4½ in. | 1/8½ | 1/8½ | 7½d. |
| 5 in. | 2/0½ | 2/0 | 9d. |

O.G. GUTTERS.

| | | | |
|---|---|---|---|
| 3 in. | 1/10½ | 1/7½ | 5d. |
| 3½ in. | 2/1½ | 1/7½ | 6½d. |
| 4 in. | 2/1½ | 1/8½ | 7½d. |
| 4½ in. | 2/2½ | 1/11½ | 8½d. |
| 5 in. | 2/8½ | 2/3 | 10½d. |

RAIN WATER PIPES.

| Per yd. in 6 fts. | Pipe | Bends. Stock angles. | Branches. |
|---|---|---|---|
| 2 in. | 2/2½ | 1/5½ | 2/2 |
| 2½ in. | 2/3½ | 1/8½ | 2/7½ |
| 3 in. | 2/8½ | 2/1½ | 3/2 |
| 3½ in. | 3/2½ | 2/6½ | 3/7½ |
| 4 in. | 3/8½ | 3/0½ | 4/5 |

NETT PRICES.

Tonnage allowance—4-ton lots, 5 per cent.
2-ton lots, 2½ per cent.

L.C.C. COATED SOIL PIPES—London Prices, ex Stock.

| Per yd. in 6 fts. | Pipe. | Bends. | Branches. |
|---|---|---|---|
| 2 in. | 3/9½ | 2/7½ | 3/2 |
| 2½ in. | 4/5 | 2/10½ | 3/11½ |
| 3 in. | 4/9 | 3/2 | 4/8½ |
| 3½ in. | 4/10½ | 3/11½ | 5/5½ |
| 4 in. | 5/3½ | 4/5 | 6/3½ |

L.C.C. COATED DRAIN PIPE.

| | Pipe. | Bends. | Branches. |
|---|---|---|---|
| 3 in. per yd. in 9 fts. | 5/5 | 6/3 | 9/11 |
| cwt. qr. lbs. | | | |
| 4 in. 1 1 20 | 7/11 | 7/1 | 12/6 |
| 5 in. 1 2 22 | 9/7 | 12/9 | 19/3 |
| 6 in. 2 0 6 | 11/5 | 14/8 | 25/6 |

Gaskin, 75/- per cwt.

| | Per ton basis in London. £ s. d. |
|---|---|
| IRON.—Staffordshire Crown, Merchant quality | 18 7 6 |
| IRON.—Staffordshire Marked Bars | 19 7 6 |
| Mild Steel Bars | 19 15 0 |
| Mild Steel Hoops | 21 10 0 |

Ex Merchant's Stock, per ton (two-ton lots).

| | |
|---|---|
| Soft Steel Sheets, C.R. and C.A.— | |
| 20 gauge | 24 17 6 |
| 24 gauge | 25 2 6 |
| 26 gauge | 25 17 6 |
| Galvanised Corrugated Sheets, 6 ft. to 9 ft. | |
| 20 gauge | 27 0 0 |
| 24 gauge | 27 10 0 |
| 26 gauge | 28 15 0 |
| Galvanised Flat Sheets, C.R. and C.A.— | |
| 20 gauge | 28 10 0 |
| 24 gauge | 29 0 0 |
| 26 gauge | 30 5 0 |

| | Per ton. £ s. d. |
|---|---|
| Cut Nails, 3 in. and up | 28 10 0 |

ALL NETT.

METAL WINDOWS.—Standard sizes, suitable for complete houses, including all fittings, painting two coats, and delivery to job, average price about 2s. 4d. to 2s. 7d. per foot super.

## PAINTS, &c.

| | £ s. d. |
|---|---|
| Raw Linseed Oil (5 galls.) .. per gallon | 0 5 9 |
| Boiled Linseed Oil (5 galls.) .. " | 0 6 0 |
| Genuine Ground English White Lead, per cwt. | 3 10 3 |
| Genuine White Lead Paint, 14 lb. tins free, per cwt. | 4 14 0 |
| Genuine Red Lead, " | 2 17 0 |
| Linseed Oil Putty " | 1 11 3 |
| Size, XD quality fkn. | 0 4 9 |

Turpentine substitute can be obtained and prices vary according to quality from 3/5 gallon upwards.

| | £ s. d. |
|---|---|
| SNOWCEM CEMENT PAINT ..... per cwt. | 2 16 0 |
| C.M.C. CAMOUFLAGE PAINT ..... " | 2 16 0 |

# BUILDING TRADE WAGES IN SCOTLAND

Following are grade rates authorised by the Scottish N.J.C. from February 1. Every endeavour is made to ensure accuracy, but we cannot be responsible for errors that may occur.

| Grade Classification | A | A1 | A2 | A3 | B | B1 |
|---|---|---|---|---|---|---|
| Craftsmen | 1/11½ | 1/11 | 1/10½ | 1/10 | 1/9½ | 1/9 |
| Labourers | 1/6 | 1/5½ | 1/5½ | 1/5 | 1/4½ | 1/4½ |

| | | | | | | |
|---|---|---|---|---|---|---|
| Aberdeen | A | Dumfriesshire | A2 | Inverness* | | Perthshire | A2 |
| Ayrshire | A | Dundee | A | Inverurie | A1 | Peterhead | A1 |
| Banff | B | Dunoon | A | Kincardineshire | A2 | Renfrewshire | A |
| Berwickshire | A2 | East Fife | A | Kinross-shire | A | Rothesay | A |
| Bridge of Allan | A | East Lothian | A | Lanarkshire | A | Roxburghshire | A2 |
| Broughty Ferry | A | Edinburgh | A | Midlothian | A | St. Andrews | A |
| Clackmannanshire | A | Fifeshire | A | Monifieth | A | Selkirkshire | A2 |
| Doune | A | Forfarshire | A2 | Moray and Nairn | B | Stewartry | A2 |
| Dunblane | A | Glasgow | A | Newport | A | Stirlingshire | A |
| Dumbartonshire | A | Greenock | A | Peebleshire | A2 | Stornoway | A2 |
| Dumfries | A1 | Hamilton | A | Perth | A | Tayport | A |
| | | | | | | West Lothian | A |

*This town has its own rates: Masons, 1/8½; Carpenters, 1/8½; Slaters, 1/8½; Plumbers, 1/9; Plasterers, 1/9½ but 1/10 is paid owing to the scarcity at present; Painters, 1/8½ and Labourers, 1/4

The information given in this table is copyright. Rates of wages in England and Wales are given on page 252.

## VARNISHES, &c.

| | | Per gallon. £ s. d. |
|---|---|---|
| Oak Varnish | Outside | 0 16 0 |
| Fine do. | " | 0 18 0 |
| Fine Copal | " | 1 0 0 |
| Pale Copal | " | 1 2 0 |
| Pale Opal Carriage | " | 1 6 0 |
| Best do. do. | " | 1 14 0 |
| Floor Varnish | Inside | 1 0 0 |
| Fine Pale Paper | " | 1 0 0 |
| Fine Copal Cabinet | " | 1 4 0 |
| Fine Copal Flatting | " | 1 2 0 |
| Hard Drying Oak | " | 1 0 0 |
| Fine Hard Drying Oak | " | 1 1 6 |
| Fine Copal Varnish | " | 1 2 6 |
| Pale do. | " | 1 4 0 |
| Best do. | " | 1 4 6 |
| Best Japan Gold Size | " | 1 14 6 |
| Best Black Japan | | 0 12 0 |
| Oak and Mahogany Stain (water) | | 0 14 0 |
| Brunswick Black | | 0 9 6 |
| Berlin Black | | 0 16 0 |
| Knotting (patent) | | 0 17 0 |
| French and Brush Polish | | 0 14 0 |
| Liquid Dryers in Terebene | | 0 11 0 |
| Cuirass Black Enamel | | 0 9 0 |

## LEAD, &c.

| (Delivered in London.) | Per ton. £ s. d. |
|---|---|
| LEAD.—Sheet, English, 4 lb. and up | 38 0 0 |
| Pipe in coils | 38 10 0 |
| Soil pipe | 42 10 0 |
| Compo pipe | 47 10 0 |

NOTE.—Country delivery, 20/- per ton extra, lots under 3 cwt. 4/- per cwt. extra and over 3 cwt. and under 5 cwt., 2/6 per cwt. extra. Cut to sizes, 4/- per cwt. extra.

Old lead, ex London area, at Mills ..... per ton £18 0 0.


*Patent Roof*

GLAZING

*The Hall Mark* AYGEE *of Craftsmanship*

Actual manufacturers of patent glazing Lantern and Skylights, Metal Windows, etc.

AYGEE LTD.

*Metal Window Manufacturers, Light Steel Constructional Engineers.*

100 WESTMINSTER BRIDGE RD., S.E.1

*Ring: Waterloo 6314*

(6 lines).


## THE SCOTTISH BUILDER.

**GLASGOW.**—Plans approved by the City Dean of Guild Court for alterations and additions, the architects being Nicol & White, 261, West George-st., Glasgow.

### W.D. Business Insurance Premium.

The Board of Trade have decided, with the approval of the Treasury, that the premium payable under the Business Scheme for the whole year to September 30, 1943, shall not exceed £1 per cent. For the period of six months up to March 31, 1943, the rate of premium will be 10s. per cent., and will be payable in one sum. The rate of premium for the subsequent six months will be determined in March next and will not exceed 10s. per cent.

## GLASS.

ENGLISH SHEET GLASS IN CRATES OF STOCK SIZES.

ORDINARY GLAZING QUALITY (O.Q.) AND SELECTED GLAZING QUALITY (S.Q.).

PER FOOT SUPER.

In sizes not exceeding 80 in. long or 48 in. wide or 110 united inches.

| | O.Q. | S.Q. |
|---|---|---|
| 18 oz. in 300 ft. cases | 2½d. | 2½d. |
| 24 oz. " 200 ft. " | 3½d. | 4½d. |
| 26 oz. " 200 ft. " | 4d. | 4½d. |
| 32 oz. " 200 ft. " | 5½d. | 6½d. |
| 24 oz. in 300 ft. cases | 3½d. | 4½d. |
| 26 oz. " 300 ft. " | 3½d. | 4½d. |
| 32 oz. " 300 ft. " | 5½d. | 6½d. |
| Fluted, 21 oz. | 9½d. | |

Extra price according to size and substance for squares cut from stock.

ENGLISH ROLLED PLATE AND FIGURED CATHEDRAL, ETC., IN CUT SIZES.

| Over 500 ft. super of all kinds. | Per ft. s. d. |
|---|---|
| Rolled plate, ¼ in. | 5½d. |
| Rough cast double rolled, ¼ in. | 6½d. |
| Rough cast double rolled, ⅜ in. | 6½d. |
| Figured rolled, and Cathedral, white | 6½d. |
| Figured rolled and Cathedral, tinted | 9½d. |
| Rolled Sheet | 6d. |
| Reeded, Broad Reeded, Cross Reeded and Chevron Reeded, ¼ in. thick | 0 10½ |

Rolled plate is the same price as rough cast double rolled.

| | Per ft. s. d. |
|---|---|
| Wire Rolled, ¼ in. thick | 0 9½ |
| Wired Cast, ¼ in. thick | 0 9½ |
| Georgian Wired Cast | 0 10 |
| "Calorex" Sheet, 21 oz. | 2 6 |
| " 32 oz. | 4 0 |
| " Cast, ¼ in. thick | 0 10 |
| " " ⅜ in. thick | 1 0 |
| " " ½ in. thick | 1 2 |
| Non Actinic Glass, ¼ in. thick | 0 9½ |
| " " " ⅜ in. thick | 1 0 |
| " " " ½ in. thick | 1 2 |

"VITA" GLASS.

| | Per ft. s. d. |
|---|---|
| "Vita" Plate Glass, about 3/16 in. thick | |
| To 7 ft. super | 5 0 |
| Over 7 ft. super | 7 6 |
| "Vita" Sheet Glass, about 18/20 oz. | 2 0 |
| Cathedral "Vita" Glass: | |
| ¼ in. thickness | 2 0 |
| ⅜ in. " | 3 0 |
| ½ in. Georgian Wired "Vita" Glass | 3 6 |

GLASS BRICKS.

| | s. d. |
|---|---|
| P.B. 1—8 in. × 4½ in. × 3½ in. | 2 9 each nett |
| P.B. 2—5½ in. × 5½ in. × 3½ in. | 2 6 " |
| P.B. 3—7½ in. × 7½ in. × 3½ in. | 3 6 " |
| P.B.32—7½ in. × 7½ in. × 3½ in. | 3 6 " |
| Radiused Corner Bricks to match up with— | |
| P.B. 2 | 4 6 each nett |
| P.B. 3 | 6 0 " |
| P.B.32 | 6 0 " |

## BRITISH RESTAURANTS AND CANTEENS

**Bingley.**—E.C. propose extensions to kitchen at Mornington-rd. school for additional feeding facilities.

**Burnopfield.**—L. J. Couves & Partners (F.), 13, Westfield-ter., Gosforth, Newcastle-on-Tyne, are architects for miners' canteen.

**Caernarvonshire.**—C.C. propose emergency feeding centres at Bangor, Nant Conway, Pwllheli, Penmaenmawr, Llandudno, Conway and Ogwen areas.

**Cleckheaton.** — Spenborough U.D.C. approved canteen.

**Dukinfield.**—T.C. propose extension of school canteen.

**Knottingley.**—West Riding E.C. propose prefabricated building for school canteen.

**Lincolnshire (Kesteven Division).**—E.C. propose school canteens. Plans by C. B. Metcalfe (F.), County Architect, County Offices, Sleaford.

**Lutterworth.**—R.D.C. propose alterations to premises of Working Men's Club for conversion into B.R. Plans by G. Berridge, S.

**Swansea.**—C.B. to proceed with B.R. at Castle-st.

**Wath-upon-Dearne.** — U.D.C. propose adaptation of premises at West Melton for B.R. Plans by W. E. Haigh, S.

## CURRENT AND PROPOSED NEW BUILDINGS

**Bangor (Caernarvonshire).** — Welfare Committee propose adaptation of Mena Fron, Upper Bangor, into women's hostel.

**Blackburn.**—T.C. propose prefabricated building at Intack school for war-time day nursery. Plans by W. Pickstone, B.S.

**Bradford.**—T.C. to proceed with adaptation of Wells school buildings, Ilkley, for an approved school. Plans by J. T. Castle (A.), City Architect.

**Bury.**—T.C. propose adaptation of premises at Maxwell-st., for war-time day nursery.

**Caernarvonshire.**—C.C. propose home for aged and infirm persons.

**Colne Valley.**—Service of Youth Committee acquired Grove House, Linthwaite, for adaptation for new headquarters.

**Coventry.**—Committee of Sea Cadet Corps (Secretary, W. S. Heatley, 19-20, High-st., Coventry) propose permanent headquarters, at £3,000.—T.C. propose redeveloping central areas for housing units.—T.C. to invite tenders for completion of clearance scheme.

**Downham.**—U.D.C. approved plans for new building at police station.

**Durham.**—C.C. to build war-time nursery at Wheatley Hill. Plans by G. B. Clayton, Shire Hall, Durham.

**Loughborough.** — E.C. propose substation.

**Manchester.**—T.C. approved: Additions, N. Bennett, architect, Dales Brow House, Swinton; alterations to works, A. M. Isaacs, architect, 136, Middleton-la., Crumpsall; additions to works, R. Thomason, architect, 16, Moor-la., Kersal, Salford 7; alterations and additions to bakery, Denham, Mackeith & Partners, architects, Church-st., Blackley; additions to works, architects, Cruickshank & Seward (F.), 16, Princess-st.; additions to factory, Drury & Gomersall, architects, 11, Imperial-bldgs., Oxford-rd., Chorlton-on-Medlock.

**Newcastle-on-Tyne.** — C. S. Errington, 46, Grainger-st., is architect for new roof at Grainger-st.

**North Shields.**—W. Stockdal, Howard-st., North Shields, is architect for conversion of premises at Northumberland-sq., into hostel for British Sailors' Society.

**Redcar.**—T.C. to erect sub-station. Plans by B.E.

**Rochdale.**—Propose welfare scheme, at £10,000.

**Salford.**—T.C. approved plans for erection of buildings for Lancashire Tar Distilleries, Ltd.

**Scarborough.**—F. Baker, York-pl., Scarborough, prepared plans for covered yard.

**Shoreditch.** — B.C. acquired a site at junction of Vincent-st., Cranwood-st. and Henson-st., for war-time nursery.

**Stockport.** — T.C. propose: Erection of buildings for Highways depot at Reddish; adaptation of premises at Edgeley-rd., and The Crescent, Davenport, for Highways depot; war-time day nursery at Garners-la.; structural alterations to Thorneley House for remand home.

**Stockport.**—Central Electricity Board propose two sub-stations.

**Stone.**—R.D.C. propose public conveniences at junction of Stone-Newcastle-rds.

**Stourport.**—U.D.C. propose erection of passenger 'bus shelters on selected points.

## TENDERS

**The Editor welcomes authentic information for this feature from architects, surveyors or contractors. Items should reach 4, Catherine-street, Aldwych, W.C.2, not later than Tuesday morning.**

**Tenders for A.R.P. work will be found under "A.R.P. Schemes."**

* Denotes *accepted.*
† Denotes *provisionally accepted.*
‡ Denotes *recommended for acceptance.*
§ Denotes *accepted subject to modification.*
¶ Denotes *accepted by H.M. Government departments.*

**Glasgow.**—Canteen. James Morrison, architect, 3, Charles-st., Springburn-rd., Glasgow. Excavation, brick and building work, etc.: *Cowieson, Ltd., Glasgow.

**¶London (Air Ministry).**—Directorate of Contracts (A.M.) has placed contracts to the value of £500 or over for the week ended September 5:—

Civil engineering work: Hadsphaltic Construction Co., Ltd., Wellington, Salop; Dowsett Engineering Construction, Ltd., Malvern, Worcs; J. Laing & Son, Ltd., London, N.W.7; Kettlewell, Son & Co., Ltd., Hull.

Structural steelwork: Tees Side Bridge & Engineering Works, Ltd., Middlesbrough; Palmers Hebburn & Co., Ltd., Hebburn-on-Tyne.

Building work: Y. J. Lovell & Son, Ltd., Gerrards Cross, Bucks; Griggs & Son, Ltd., London, S.W.1; C. Miskin & Sons, Ltd., St. Albans, Herts; Gee, Walker & Slater, Ltd., Bletchley, Bucks; Hall Beddall & Co., Ltd., London, S.E.1; Higgs & Hill, Ltd., London, S.W.8; Rice & Son, Ltd., London, S.W.9; R. Costain (Liverpool), Ltd., Liverpool.

Building and civil engineering work: A. M. Carmichael, Ltd., Edinburgh; Geo. Wimpey & Co., Ltd., Denham, Bucks; M. J. Gleeson, Ltd., Cheam, Surrey.

General maintenance work: Chas. Symons & Co., Liskeard, Cornwall; Pochins (Manchester), Ltd., Manchester; McManns & Co., Ltd., London, N.20; W. Norman & Son, Ltd., Leamington Spa; H. C. Janes, Ltd., Luton; J. Newsome Walker, Ltd., Leeds; J. Cryer & Sons, Ltd., Fleetwood; Towle Bros., Ltd., Grimsby; E. S. Ireson, Stamford.

**¶London (Air Ministry).**—Directorate of Contracts (A.M.) has placed the following new contracts to the value of £500 or over for the period ended September 12:—

Building work: F. B. Thackeray & Co., Ltd., Huntingdon; H. E. Symes, Ltd., Brentwood, Essex; Lansdowne Building Co. (London), Ltd., London, S.W.3; J. Crawley, Ltd., Nottingham; W. G. Robson, Ltd., Sheffield, 6; Dove Bros., Ltd., London, N.1; Henry Boot & Sons, Ltd., Sheffield, 11; Welwyn Builders, Ltd., Welwyn Garden City; Richard Costain, Ltd., London, S.W.1; M. & F. O. Foster, Ltd., Hitchin, Herts; H. Arnold & Son, Ltd., Doncaster; and Staverton Builders, Ltd., Totnes, Devon.

Civil engineering: Crowley, Russell & Co., Ltd., Glasgow.

General maintenance work: J. & R. W. Taggart, Belfast; E. K. Youell & Son, Ltd., Coventry; Hussey, Egan & Pickmere, Ltd., Pembroke; William Sindall, Cambridge; Davis (Contractors), Ltd., London, N.W.6; Ainstay Building Estates, Ltd., York; and Hadsphaltic Constructions Co., Ltd., Wellington, Salop.

**¶London (Ministry of Works).**—Works contracts placed by Ministry of Works and Planning during week ending September 10:—

Hendon: Htg. & H.W.S., Thames Bank Iron Co., Ltd., Lodge-rd., St. John's Wood, N.W.8.

Berks: Building work, H. & J. & A. Wright, Ltd., Great Missenden, Bucks; Crosby & Co., Ltd., Lion Works, West-st., Farnham, Surrey.

Bucks: Building work, William Hartley & Sons, Wexham, Slough.

Bucks: Electrical work, The Colston Electrical Co., Ltd., 39, Victoria-st., S.W.1; Grierson, Ltd., St. George's House, 195-203, Waterloo-rd., S.E.1.

Ches: Building work, The Leyland Construction Co., Ltd., Leyland, Lancs; C. Cornes & Son, Linchfield-st. works, Stoke-on-Trent.

Cumberland: Building work, Millar & Sons, 15, London-rd., Carlisle.

Denbighshire: Building work, John Hughes (Contractors), Ltd., Wrexham.

Devonshire: Building work, Griggs & Son, Ltd., 56, Victoria-st., S.W.1.

Glos: Building work, Holborow & Sons, Ltd., Tetbury, Glos; Chas. H. Read, Ltd., Stratton-st., Bristol 2.

Glos: Electrical work, Thorpe & Thorpe, Ltd., Hartley Wintney, Hants.

Glos: Htg. & H.W.S., The Brightside Foundry & Eng. Co., Ltd., 14-16, Baldwin-st., Bristol.

Hampshire: Building work, Alex. Anderson (Contractors), Ltd., 1, Stanmore-rd., Heaton, Newcastle-on-Tyne.

Lancs: Building work, Smith & Blakeney, Ltd., Calway-st., Leeds 11.

Middx: Building work, J. Jarvis & Sons, Ltd., 8, Rosendale-rd., Epsom.

Norfolk: Building work, W. S. Lusher, School-la., Sprowston, Norwich.

Northamptonshire: Htg. & H.W.S., Brightside Foundry & Eng. Co., Ltd., Bonehill House, Nr. Tamworth, Staffs.

Warwickshire: Electrical work, Edmundson's Electricity Corporation, Ltd., 24-30, Gillingham-st., S.W.1; Rashleigh Phipps & Co., Ltd., 2, Hanover-sq., London, W.1.

Warwickshire: Building work, Percy Trentham, Ltd., Wood-la., Bromford, Erdington, Birmingham.


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Yorks: Building work, Herbert Joyce & Sons, Ltd., Martins Bank-chbrs., Clipton-st., Blackpool; J. Gerrard & Sons, Ltd., Swinton, Manchester.

¶**London (War Dept.).**—Works contracts placed by War Dept. for week ended September 5:—

Inverness-shire: Miscellaneous work, Wm. Tuach & Sons, Invergordon.

Perthshire: Miscellaneous work, Robt. Brand & Sons, Perth.

Northumberland: Miscellaneous work, Thos. Clements & Sons, Ltd., Newcastle.

Yorks: Miscellaneous work, W. R. B. Salmon, Ripon; Geo. Chapleo & Sons, Ltd., Leyburn; A. E. Wright, Ltd., Leyton, E.10; Geo. Dougill & Son, Darlington.

Yorks: Hutting (erection) and miscellaneous work, J. T. Tarren & Son, Ltd., Hutton Rudby.

Yorks: Miscellaneous work, A. Robinson (Contractors), Ltd., Middlesbrought; Moody Bros., Northallerton; Piggott Bros. & Co., Ltd., Darlington; A. Walker, Saltburn-by-the-Sea; E. Hunter, Scarborough; Wm. Cornforth, Ltd., Whitby; F. W. Plaxton, Scarborough.

Derbyshire: Miscellaneous work, J. H. Fryer, Ltd., Derby.

Shropshire: Hutting (erection), W. Higley & Son, Shrewsbury.

Brecon: Miscellaneous work, B. Jenkins & Son, Brecon.

Suffolk: Miscellaneous work, Wm. C. Reade, Aldeburgh.

Essex: Miscellaneous work, T. J. Evers, Tiptree; A. E. Coryn, Hornchurch.

Middx: Miscellaneous work, Bennie Lifts, Ltd., London, S.E.11.

Middx: Building work, Fredk. Coyle & Co., Ltd., Brentford.

Middx: Hutting (supply & erection), Limpus & Son, Ltd., Kingston-on-Thames.

Kent: Concrete work, Foote Milne & Co., Margate.

Surrey: Building work, E. S. Moss, Ltd., Hendon, N.W.4; Parsons & Sons, London, S.W.2.

Hampshire: Miscellaneous work, Structural Contractors, Ltd., Surbiton; A. Clare, Ltd., Worthing; H. G. Ross & Son, Netley.

Somerset: Hutting (erection), W. J. Channing & Sons, Burnham-on-Sea, Somerset; F. J. Amery & Son, Bath.

Cornwall: Hutting (erection), J. Williams & Co. (Cornwall), Ltd., St. Austell.

Co. Down: Miscellaneous work, J. & R. W. Taggart, Belfast.

**Manchester.**—Demolition of property, for T.C.: *S. Looms, 243, Upper Brook-st., Longsight, Manchester 13.

**Manchester.**—Erection of an office and research block: *Fram Reinforced Concrete Co., Ltd., 165, Plymouth-gr., Longsight, Manchester 13.

**Manchester.**—Additions to factory: *W. Chappell & Sons, Ltd., Chappell-rd., Droylsden, Manchester.

**Morpeth.**—Farm buildings at Hebron: *R. Carse & Son, Oldgate, Morpeth.

**Newcastle-on-Tyne.**—Canteen. Cackett, Burns Dick & McKellar, Ellison-pl., Newcastle-on-Tyne, architects: *J. C. Clarkson, 28, Benwell Grange-av., Newcastle-on-Tyne.

**Newcastle-on-Tyne.** — Construction of staircase at Lisle-st.: *Stephen Easten, Ltd., Westgate Grange, Newcastle-on-Tyne 4.

**St. Ives.**—For painting 57 houses, for T.C. B.S.: *H. S. Smith, St. Ives, Hunts, £285.

**Shipley.**—Erection of war-time day nurseries, for U.D.C. H. Dawson, S., Council Offices, Kirkgate: *Michael Booth & Sons, 4, Beechwood-av., Shipley, £3,680.

**Stockport.**—Works, for T.C.: Adaptation and erection of building for day nursery at Daw Bank nursery school: *Henry Bardsley & Sons, Ltd., Booth-st., £2,017; decoration of scarlet fever block, isolation hospital: *J. W. Wrigley & Son, Ltd., 12, Priest-st., £205.

**Sunderland.**—Fire-proofing of Municipal hospital, for T.C.: *Direct labour, £1,200.

**Sunderland.**—For canteen, rest-room and air-raid shelter: *D. & J. Ranken, Stockton-rd., Sunderland.

**Warrington.**—Erection of war-time day nursery on selected site, for Lancashire C.C. L. Evans, County Architect, County Offices, Preston: *W. Lionel Gray (1933), Ltd., Hospital-bldgs., Hospital-rd., Farnworth, nr. Bolton.

**Yorks.**—Erection of buildings and construction of roads, etc.: *C. Miskin & Sons, Ltd., Romeland, St. Albans, Herts.


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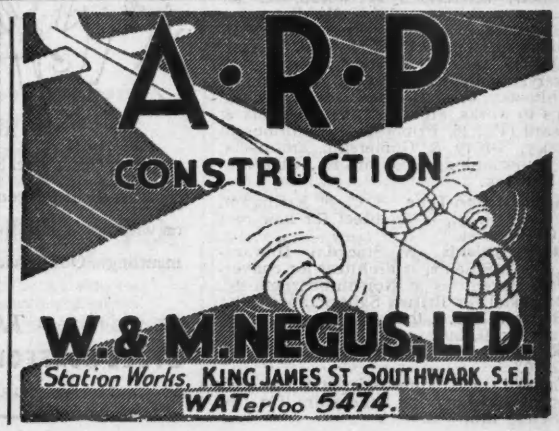


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